

# THE CRITICAL REVIEW.

For the Month of November, 1783.

*Philosophical Transactions of the Royal Society of London. Vol. LXXII. Part II. For the Year 1782. 4to. 8s. sewed.*  
L. Davis.

**T**HIS part of the annual volume is small, but, in many respects, important. We mention this with particular pleasure, since the Society have been sometimes accused of compensating by the bulk, for the value of their materials: but we must proceed in the usual manner.

Article XIX. An Attempt to make a Thermometer for measuring the higher Degrees of Heat, from a red Heat up to the strongest that Vessels made of Clay can support. By Josiah Wedgwood.—This article appears to us of considerable importance; though the philosopher was not wholly destitute of assistance. Sir Isaac Newton investigated with care the heat of bodies; and, by applying the thermometer when it would bear that of iron, which had been allowed to cool gradually from a red heat, calculated what was the highest point, from that which he was able to measure. The experiment by which he endeavoured to establish his proposition is related in a former volume of the *Philosophical Transactions*. (Abridgment, IV. 2. p. 3.) He supposed that the quantities of heat lost, in given small times, would be always proportional to the heats subsisting in it, reckoning the heat to be just the excess, whereby it is warmer than the ambient air. If then the times be in an arithmetical progression, the heats will be in a geometrical. *Principia*, lib. ii. lem. 1. The supposition was however to be more exactly limited; and, when his experiments were repeated, the results were different. Other methods were afterwards investigated,  
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gated, but they require frequently so much attention, and sometimes so long calculations, that they have been seldom practised. The most ready method, though by no means an exact one, is to heat a cube of iron in the fire, whose heat is to be measured, and to plunge it into a given quantity of water, of a given heat; the increase of heat, allowing for the different densities of the iron and water, gives the degree required. Still it was necessary to attain both a more easy and exact method of measuring high degrees of heat; and we think that Mr. Wedgwood, who has modestly styled his paper an 'attempt' only, has in general succeeded.

The experiment is founded on the property of clays diminishing in bulk from fire. He finds that this diminution is regular and gradual, from a low red heat, to the greatest degree that clay can bear, without being vitrified. That the clay may be repeatedly cooled and heated, yet, in higher degrees, its diminution shall go on as regularly as if it had not before been exposed to the fire. The method of making a thermometer of this kind is therefore obvious; either a cylinder or a paralelopiped is formed of this clay, and hardened in the lowest red heat. After it is hardened, it must be ground down to a given size, and its length should be about an inch; a gage is then made, twenty-four inches long, divided into inches and tenths; this gage consists of two upright pieces of brass, fixed on a base. The distance between them, at the top, is exactly equal to the size of the clay in its hardened state, and the sides converge, so that, at the bottom, their distance is equal to what it will assume from being exposed to the greatest heat which it will bear; consequently, at any intermediate degree, the converging sides will prevent it from falling down, and the marks on the brass will point out the diminution.

The contrivance is elegant and ingenious, though not described so minutely as to enable a workman to follow it; but, when the principle is once understood, the minuter directions are easily supplied. It will be obvious, that the clay must be of the same kind, to compare observations made with it; our author observes, that the Cornish porcelain clays are best adapted to this purpose, and offers to the Royal Society enough of it to supply the world with thermometers for numerous ages. But as he has given an accurate analysis of it, and finds that five parts of this clay affords three parts of pure argillaceous earth, and two parts of an earth of a very different kind, probably siliceous, we think there will be little difficulty in imitating it. A piece of burnt earth, four-tenths of an inch deep, six-tenths broad, and an inch long, may be cheap enough, if even alum is decomposed to procure the clay



clay pure; while nearly one-half is supplied by a substance so cheap, and so easily procured, as common flint. All clays have a large proportion of flint; sometimes it exceeds one-half of the whole quantity.

It is an inconvenience in all thermometers, that their degrees are arbitrary, and subject to many alterations; which we can neither foresee or prevent; so that their real utility arises only from these circumstances affecting every observation, by which we certainly attain the *relative* heats. We cannot therefore object to Mr. Wedgwood's attempt on this account; nor is it of more importance to observe, that a scale of this kind can never be very minute. It must begin above a low red heat; and, though the scales of thermometers are sometimes carried farther than this point, they certainly cannot be employed to measure with accuracy heats which are so intense. His thermometer, he observes, shows the change, when it is equal to  $\frac{1}{800}$  part of its bulk, which is fully equal to every exigency either of the chemist or the potter. To compensate these seeming disadvantages, it possesses some material conveniences; but on this occasion we must use Mr. Wedgwood's own words.

' The thermometer-pieces possess some singular properties, which we could not have expected to find united in any substance whatever, and which peculiarly fit them for the purposes they are here applied to.

' 1. When baked by only moderate degrees of fire, though they are, like other clays, of a porous texture, and imbibe water; yet, when saturated with the water, their bulk continues exactly the same as in a dry state.

' 2. By very strong fire, they are changed to a porcelain or semi-vitreous texture; nevertheless, their contraction, on further augmentations of the heat, proceeds regularly as before, up to the highest degree of fire that I have been able to produce.

' 3. They bear sudden alternatives of heat and cold; may be dropped at once into intense fire, and, when they have received its heat, may be plunged as suddenly into cold water, without the least injury from either.

' 4. Even while saturated with water in their porous state, they may be thrown immediately into a white heat, without bursting or suffering any injury.

' 5. Sudden cooling, which alters both the bulk and texture of most bodies, does not at all affect these, at least not in any quality subservient to their thermometric uses.

' 6. Nor are they affected by long *continuance* in, but solely by, the *degree* of heat they are exposed to. In three minutes or less, they are perfectly penetrated by the heat which acts upon them, so as to receive the full contraction which that degree

of heat is capable of producing equally with those which had undergone its action during a gradual increase of its force for many hours. Strong degrees of heat are communicated to them with more celerity than weak ones; perhaps the heat may be more readily transmitted, in proportion as the texture becomes more compact.

These facts have been ascertained by many experiments, the particulars of which are omitted, because they would swell this paper much beyond the bulk intended.

The use and accuracy of this thermometer for measuring, *after an operation*, the degree of heat which the matter has undergone, will be apparent. The foregoing properties afford means of measuring it also, easily and expeditiously, *during the operation*, so that we may know when the fire is increased to any degree previously determined upon. The piece may be taken out of the fire in any period of the process, and dropped immediately into water, so as to be fit for measuring by the gage in a few seconds of time. At the same instant, another piece may be introduced into the place of the former, to be taken out and measured in its turn; and thus alternately, till the desired degree of heat is obtained. But as the cold piece will be two or three minutes in receiving the full heat, and corresponding contraction; to avoid this loss of time, it may be proper, on some occasions, to have two or more pieces, according to convenience, put in together at first, that they may be successively cooled in water, and the degrees of heat examined at shorter intervals. It will be unnecessary to say any thing further upon precautions or procedures which the very idea of a thermometer must suggest, and in which it is not apprehended that any difficulty can occur, which every experimenter will not readily find means to obviate.

It now only remains, that the language of this new thermometer be understood, and that it may be known what the heats meant by its degrees really are. For this purpose a great number of experiments has been made, from which the following results are selected.

The scale commences at a red-heat, fully visible in daylight; and the greatest heat that I have hitherto obtained in my experiments is  $160^{\circ}$ . This degree I have produced in an air-furnace about eight inches square.

Mr. Alchorne has been so obliging as to try the necessary experiments with the pure metals at the Tower, to ascertain at what degrees of this thermometer they go into fusion; and it appears, that Swedish copper melts at 27, silver at 28, and gold at 32.

Brass is in fusion at 21. Nevertheless, in the brass and copper foundries, the workmen carry their fires to  $140^{\circ}$  and upwards: for what purpose they so far exceed the melting heat, or whether so great an additional heat be really necessary, I have not learnt.

The



‘ The welding heat of iron is from 90 to 95 ; and the greatest heat that could be produced in a common smith’s forge 125.

‘ Cast iron was found to melt at 130°, both in a crucible in my own furnace, and at the foundery; but could not be brought into fusion in the smith’s forge, though that heat is only 5° lower. The heat by which iron is run down among the fuel for casting is 150°.

‘ As the welding state of iron is a softening or beginning fusion of the surface, it has been generally thought that cast iron would melt with much less heat than what is necessary for producing this effect upon the forged; whereas, on the contrary, cast iron appears to require, for its fusion, a heat exceeding the welding heat 35 or 40°, which is much more than the heat of melted copper exceeds the lowest visible redness.

‘ Thus we find, that though the heat for melting copper is by some called a white heat, it is only 27° of this thermometer. The welding heat of iron, or 90°, is likewise a white heat; even 130°, at which cast iron is in fusion, is no more than a white heat; and so on to 160° and upwards is all a white heat still. This shews abundantly how vague such a denomination must be, and how inadequate to the purpose of giving us any clear ideas of the extent of what we have been accustomed to consider as one of the three divisions of heat in ignited bodies.

‘ A Hessian crucible, in the iron foundery, viz. about 150°, melted into a slag-like substance. Soft iron nails, in a Hessian crucible in my own furnace, melted into one mass with the bottom of the crucible, at 154°: the part of the crucible above the iron was little injured.

‘ The *fonding* heat of the glass furnaces I examined, or that by which the perfect vitrification of the materials is produced, was at one of them 114° for flint-glass, and 124° for plate-glass; at another it was only 70° for the former, which shews the inequality of heat, perhaps unknown to the workmen themselves, made use of for the same purpose. After complete vitrification, the heat is abated for some hours to 28 or 29°, which is called the *settling* heat; and this heat is sufficient for keeping the glass in fusion. The fire is afterwards increased, for working the glass, to what is called the *working* heat; and this I found, in plate-glass, to be 57°.

‘ Delft ware is fired by a heat of 40 or 41°; cream-coloured, or queen’s ware, by 86°; and stone ware, called by the French *pots de grès*, by 102°; by this strong heat, it is changed to a true porcelain texture. The thermometer-pieces begin to acquire a porcelain texture about 116°.

‘ The above degrees of heat were ascertained by thermometer-pieces fired along with the ware in the respective kilns. But this thermometer affords means of doing much more, and going further in these measures than I could at first even have expected; it will enable us to ascertain the heats by which many of the porcelains and earthen wares of distant nations and differ-

ent ages have been fired: for as burnt clay, and compositions in which clay is a prevailing ingredient, suffer no diminution of their bulk by being re-passed through degrees of heat which they have already undergone, but are diminished by any additional heat, if a fragment of them be made to fit into any part of the gage, and then fired along with a thermometer-piece till it begins to diminish, the degree at which this happens points out the heat by which it had been fired before. Of several pieces of ancient Roman and Etruscan wares, which I have examined, none appear to have undergone a greater heat than  $32^{\circ}$ , and none less than  $20^{\circ}$ ; for they all began to diminish at those or the intermediate degrees.

By means of this thermometer some interesting properties of natural bodies may likewise be discovered or more accurately determined, and the genus of the bodies ascertained. Jasper, for instance, is found to diminish in the fire, like an artificial mixture of clay and siliceous matter; granite, on the contrary, has its bulk enlarged by fire, whilst flint and quartzose stones are neither enlarged nor diminished. These experiments were made in fires between  $70^{\circ}$  and  $80^{\circ}$  of this thermometer. A sufficient number of facts like these, compared with each other, and with the properties of such natural or artificial bodies as we wish to find out the composition of, may lead to various discoveries, of which I have already found some promising appearances; but many more experiments are wanting to enable me to speak with that certainty and precision on these subjects which they appear to deserve.

A piece of an Etruscan vase melted completely at  $33^{\circ}$ ; pieces of some other vases and Roman ware about  $36^{\circ}$ ; Worcester china vitrified at  $94^{\circ}$ ; Mr. Sprimont's Chelsea china at  $105^{\circ}$ ; the Derby at  $112^{\circ}$ ; and Bow at  $121^{\circ}$ ; but Bristol china shewed no appearance of vitrification at  $135^{\circ}$ . The common sort of Chinese porcelain does not perfectly vitrify by any fire I could produce; but began to soften about  $120^{\circ}$ , and at  $156^{\circ}$  became so soft as to sink down, and apply itself close upon a very irregular surface underneath. The true stone Nankeen, by this strong heat, does not soften in the least; nor does it even acquire a porcelain texture, the unglazed parts continuing in such a state as to imbibe water and stick to the tongue. The Dresden porcelain is more refractory than the common Chinese, but not equally so with the stone Nankeen. The cream-coloured or queen's ware bears the same heat as the Dresden, and the body is as little affected by this intense degree of fire.

Mr. Pott says, that to melt a mixture of chalk and clay in certain proportions, which proportions appear from his tables to be equal parts, is "among the master pieces of art." This mixture melts into a perfect glass at  $123^{\circ}$  degrees of this thermometer.

The whole of Mr. Pott's or any other experiments may, by repeating and accompanying them with these thermometric pieces,



pieces, have their respective degrees of heat ascertained, and thereby be rendered more intelligible and useful to the reader, the experimenter, and the working artist.

I flatter myself that a field is thus opened for a new kind of thermometrical inquiries; and that we shall obtain clearer ideas with regard to the differences of the degrees of strong fire, and their corresponding effects upon natural and artificial bodies; those degrees being now rendered accurately measurable, and comparable with each other, equally with the lower degrees of heat which are the province of the common mercurial thermometer.

We have been more than usually full on this article, because it seems to deserve attention. It adds not only to the *bulk*, but to the *stock*, and contributes to extend our enquiries, by facilitating the means of ascertaining the powers of our instruments.

Article XX. An Analysis of Two Mineral Substances, viz. the Rowley-rag-stone and the Toad-stone. By William Withering, M. D.—Dr. Withering appears to be both an industrious and an accurate chemist. He purposes to investigate the nature of all those ‘substances which are known to exist in the earth in large quantities.’ The attempt is laudable, and, in pursuing it, he will probably add more to our knowledge than all the systems of cosmogony which have been hitherto invented.

‘The Rowley-rag-stone forms a range of hills in the southern part of Staffordshire. The lime-stone rocks at Dudley bed up against it, and the coal comes up to the surface against the lime-stone. The highest part of the hills is near the village of Rowley. The summit has a craggy, broken appearance, and the fields on each side to a considerable distance are scattered over with large fragments of the rock, many of which are sunk in the ground. In a quarry near Dudley, where a pretty large opening has been made in order to get materials for mending the roads, the rock appears to be composed of masses of irregular rhomboidal figures: some of these masses inclose rounded pebbles of the same materials. At the distance of four, five, or six miles from the hills, as at Bilston, Willenhall, and Wednesbury, the rag-stone is frequently found some feet below the surface in rhomboidal pieces, forming an horizontal bed of no great depth, and seldom of more than a few yards extent.—

‘Its more obvious properties are a dark grey appearance, with numerous minute shining crystals. When exposed to the weather gets an ochry colour on the outside; strikes fire with steel; cuts glass; melts, though not easily, under the blow-pipe. Heated in an open fire becomes magnetic, and loses about 3 in 100 of its weight.—

‘It consists of siliceous earth, clay, or earth of allum, and calx of iron. From the latter must be deducted  $11\frac{1}{2}$  for the quantity

quantity of calciform iron, found by experiment to be contained in the quantity of phlogisticated alkaly made use of, and then the proportions in 100 parts of the stone will be these:

Pure siliceous earth	47½
Pure clay, free from fixable air	32½
Iron in a calciform state	20

From this view of the component parts of this stone, it is not improbable, that it might advantageously be used as a flux for calcareous iron ores. The makers of iron are acquainted with such ores, but never could work them to advantage, for want of a cheap and efficacious flux.

The toad-stone forms large strata in Derbyshire, which are fully described in Mr. Whitehurst's very valuable and intelligent work. It is of a dark brownish grey; a granulated texture, with several cavities filled with crystallized spar. It does not strike fire with steel; it melts to a black glass. From the experiments 100 parts of this species of toad-stone appeared to contain

Siliceous earth	56	} = 63½
More ditto	7½	
Calciform iron	16	
Calcareous earth	7½	
Earth of allum	14½	

From the addition of 1½ of weight it is probable, that the substances capable of uniting with fixable air were not in the specimen used fully saturated with it, as they would be after their precipitation by the mild alkaly.

Upon repeating these experiments with different portions of the toad-stone, the quantities of the calcareous earth were found to differ a little; but nothing further appeared to invalidate the general conclusions.

The experiments seem to have been planned with judgment and executed with dexterity. They are also related with remarkable clearness. Dr. Withering has added a table, showing the solubility or insolubility of certain saline substances in alcohol, taken from Macquer and his own experiments. But his table would have been more useful, if he had noticed also the degrees of these qualities.

Article XXI. New Fundamental Experiments upon the Collision of Bodies. By Mr. John Smeaton, F. R. S.—We entirely agree with the attentive and judicious author of this article, that simple principles of science cannot be too critically examined. To be accurate in the elements is the first step in improvements; but this accuracy is only to be attained by a master of the science, because he alone can be aware



of the different sources of fallacy. Mr. Smeaton, with this view, introduced his Tract on Mechanic Power to the Society, and it was published in the LXVIth volume, for the year 1776. This paper was intended as a supplement to it; but different circumstances prevented its appearance at that time. His present purpose is to show, that whether bodies are gradually put in motion from rest, and uniformly accelerated to any given velocity, or suddenly moved in consequence of collision, the principle of motion and its laws are the same; or, at least, have the same relation to mechanic power defined in the paper just mentioned. It is not necessary in this place to state the opinions of philosophers on the communication of motion; the point at present in dispute is concerning non-elastic bodies. It has been always said that, when one non-elastic body either perfectly soft, or perfectly hard, impinges on another at rest, that both will proceed with *one half* of the velocity of the impinging body.

Mr. Smeaton, in his Experiments on Mills, was misled by this doctrine, and now endeavours to support a very different one. It is well known that there are no bodies *perfectly* hard, soft, elastic, or non-elastic; and that water only comes nearest to the description of a non-elastic soft body. The want of subjects for a proper experiment, has occasioned endless confusion; since philosophy, without the assistance of facts to guide it, degenerates into fanciful and groundless hypothesis. Mr. Smeaton therefore properly observes, that this subject can be only determined by an *indirect* experiment, so limited, as clearly to prove that the velocity, after the collision of *non-elastic soft* bodies, must be very different from that which appears after the collision of non-elastic hard ones. In fact, to show that by the change of figure, which a soft body suffers in an experiment of this kind, that *one-half* of the original power is lost. In the case of elastic bodies, a force seemingly equal to that lost in changing the figure of soft bodies, for a time disappears, but is again capable of being exerted without any original accession.

These opinions are brought to their proper test by means of a machine, for which we must refer to the volume itself. The principle on which the experiments depend is, the comparison of elastic bodies with non-elastic ones, by the action of the springs being allowed, or suspended at pleasure. The experiments on this machine fully show, that one half of the mechanic power, residing in the striking body (when both are non-elastic and soft) is actually lost in the stroke. We shall insert Mr. Smeaton's conclusion respecting inelastic hard bodies, which he thinks cannot exist, because their properties  
involve

involve a contradiction. We particularly insert it for the consideration of our philosophical readers, who will find in it some curious subjects of speculation.

\* Respecting bodies unelastic and perfectly hard, we must infer, that since we are unavoidably led to a conclusion concerning them, which contradicts what is esteemed a truth capable of the strictest demonstration, viz. that the velocity of the center of gravity of no system of bodies can be changed by any collision betwixt one another, something must be assumed that involves a contradiction. This perfectly holds, according to all the established rules, both of perfectly elastic and perfectly non-elastic *soft* bodies; rules which must fail in the perfectly non-elastic *hard* bodies, if their velocity after the stroke is to the velocity of the striking body as one is to the square root of 2; for then the center of gravity of the two bodies will by the stroke acquire a velocity greater than the center of gravity the two bodies had before the stroke in that proportion, which is proved thus.

\* At the outset of the striking body, the centre of gravity of the two bodies in our case will be exactly in the middle between the two; and when they meet it will have moved from their half distance to their point of contact, so the velocity of the center of gravity before the bodies meet will be exactly one half of the velocity of the striking body; and, therefore, if the velocity of the striking body is 2, the velocity of the center of gravity of both will be one. After the stroke, as both bodies are supposed to move in contact, the velocity of the center of gravity will be the same as that of the bodies; and as their velocity is proved to be the square root of 2, the velocity of their center of gravity will be increased from 1. to the square root of 2.; that is, from 1. to 1.414, &c.

\* The fair inference from these contradictory conclusions therefore is, that an unelastic hard body (perfectly so) is a repugnant idea, and contains in itself a contradiction; for to make it agree with the fair conclusions that may be drawn on each side, from clear premises, we shall be obliged to define its properties thus: that in the stroke of unelastic hard bodies they cannot possibly lose any mechanic power in the stroke, because no other impression is made than the communication of motion; and yet they must lose a quantity of mechanic power in the stroke; because, if they do not, their common center of gravity, as above shewn, will acquire an increase of velocity by their stroke upon each other.

\* In a like manner the idea of a perpetual motion, perhaps, at first sight, may not appear to involve a contradiction in terms; but we shall be obliged to confess that it does, when, on examining its requisites for execution, we find we shall want bodies having the following properties; that when they are made to *ascend* against gravitation their absolute weight shall be less;



less; and that when they descend by gravitation (through an equal space) their absolute weight shall be greater; which, according to all we know of nature, is a repugnant or contradictory idea! [To be continued]

*Pharmacopæia Collegii Regii Medicorum Edinburgensis.* 8vo. 5s.  
in Boards. Robinson.

AS science has advanced, and medicine acquired a greater simplicity, and probably superior efficacy, the members of a college, which has contributed to some of these improvements, would have been unpardonable, if they had not availed themselves of the new æra which they have adorned. Different editions of this Pharmacopæia have consequently been published; but, though none have been faultless, and though, in some instances, we have observed alterations, rather than improvements, yet they have evinced their attention to the science itself, and have laudably aimed at a degree of perfection which human frailty can probably never attain. In the edition of 1774, the list of the articles of materia medica was very considerably shortened; but it was observable, that some new remedies were adopted, from suspicious sources, with a facility which is seldom conspicuous in an experienced physician. The present edition probably will not be thought materially defective, though the different preparations of the flammula jovis, pulsatilla nigricans, stramonium, and white dittany, are expunged. The ambergris, calcined bones, saffron, Curassoa orange, eryngo, St. John's wort, ash-coloured liver-wort, opoponax, oyster shells, and comfrey, have shared the same fate; and it will by no means disgrace the art, or injure the distressed, if they are never recalled. But the same complaisance which induced them to attend to M. Storck, has still in some degree influenced them. The new medicines are probably only suggested for the sake of a cautious experiment; but these respectable physicians ought to have considered, that, in their Pharmacopæia, they acquire an establishment, at least for the period of the present impression; and that, while the world, with reason, complains of the instability of the art, they add to its uncertainty, by suffering themselves to be waisted, 'arbitrio populario auræ.'—The additional remedies in this edition are the arnica, bals. Gileadens. cardamine pratensis, cassia lignea, cinera hortensis, cubebæ, cursuta, a root of which we have never heard, digitalis purpurea, elaterium, filix mas, dolichos pruriens, geoffræa inermis or cabbage bark, gratiola, ginseng, lichen Islandicus, lobelia, olivæ, palmæ fructus & oleum, capsicum, pix liquida, quassia, rad. Indica

Indica Lopez, rhododendron crysanthemum, sal alcalin. fossilis, falicis cort. sang. draconis, sapo alb. Hispanus, spigelia Marylandica or Indian pink, vipera & ulmi cortex.

Some of these medicines are restored from former catalogues, from which they had been expunged, by a rage for reformation: a very few excepted, we receive them with pleasure. The learned reader will recollect, that the others have been adopted from authors of credit; though we are sorry to observe, that we cannot yet expect any regular importation of them. The rad. Indica Lopez, which was first mentioned by Gaubius, has not, we believe, been since procured.

In this edition the several species are ascertained with accuracy from Linnæus, and those authors who have severally described them. This part is very material: it often points out a remarkable affinity between medicines little known and those in our possession, and sometimes shows that we have rejected and admired remedies which resemble each other. It is probably by attending to the natural orders, and other relations, that we shall complete our reformation of the materia medica.

The great change, which influences every part of this edition, is the direction of the College, to determine every thing by weight. The liquid menstrua are therefore never measured, and the quantities are consequently apparently varied. The names of the neutral salts are changed, and better adapted to their real nature. The cupr. ammoniacale and the tart. emet. which they have called tartarus antimonialis, with some others, are differently prepared. As the latter is very frequently employed, and, as the recipe seems remarkably accurate, we shall insert it.

R Causticum antimon. vel butyri antimon. q. v. infunde in aquam fervidam, in quâ salis alkalinî fixi vegetabilis purificati tantundem prius fuerit solutum, ut præcipitatur pulv. antim. qui, probe ablutus, excicetur. Dein aquæ libris quinque, adde hujus pulveris, drachmas novem, crystallor. Tart. pulv. uncias duas, cum semisse; coque paulisper donec solvantur pulveres. Solutio cocta lente vaporet in vase vitreo, ad pelliculam ut crystalli formetur.

We shall also beg leave to insert a neat and expeditious method of preparing the animal oil, which we have great reason to expect will be a very efficacious medicine.

Oleum e Cornubus Rectificatum, sive Oleum Animale.

R. Olei empyreumatici e cornubus animalium destillati recentis, q. v.

Distillet ex matraccio, capitello instructo, igne leni, quamdiu prodit oleum tenue coloris expers, quod ope aquæ a sale et spiritu



spiritu alcalino purgetur. Ut limpidum et sincerum restet hoc oleum, in phialis parvis omnino repletis et inversis servari debet, cuique vasculo prius instillatis aliquot aquæ guttis, ut, inverso vasculo, hæc inter oleum et vasis obturaculum interjaceat.

The external remedies are almost entirely changed in their forms, as well as more systematically described. But while it is impossible even to hint at all the alterations, or to point out the several improvements, it is no less difficult, in our confined limits, to offer those remarks which have occurred to us. This Dispensatory, though a strong proof of the attention of that respectable school to the improvement of their art, is still in some parts defective; but, in general, the forms are neat and elegant, frequently accurate, and well adapted to their particular purposes.

*Observations on the Management of the prevailing Diseases in Great Britain, particularly in the Army and Navy; together with a Review of that of other Countries, and Arithmetical Calculations of the comparative Success of different Methods of Cure. By John Millar, M. D. 4to. 16s. in Boards. Johnson.*

THIS volume has been printed since the year 1778, but is only now published. It contains a variety of different observations, from which we were willing to have extracted something valuable, but cannot boast of the success of our researches. The conduct of the Westminster Dispensary is not at present our object; and, though we may be astonished at seeing 138 cases of consumption cured, out of 212, or nearly 2, we shall not contend with the author, that, by some inadvertency, probably catarrhal complaints, have been invested with this formidable title. The contest with Dr. D. Monro is in abler hands; though it will detain us, for a short time, in the subsequent article.

The principal intention of our author is to show, that fevers are very generally of one kind only; that the bark is the general specific, and alone, or with a cordial regimen, equal to the cure. These are the propositions which in different parts of the work are considered in different views. Dr. Millar leaves them with anxiety and reluctance, and returns to them with pleasure. It would not probably be deemed an objection to observe, that propositions so general will become the refuge of indolence or of ignorance: they must be examined with candour and with caution, and ultimately determined by experience. The subject is not new, so that we can enter on it with greater facility and confidence. Dr. Millar's first position is not generally true, that inflammatory

and

and mixed fevers rarely occur, and that the putrid is the more usual type. We have examined the histories of epidemics for this purpose; we have attended to the operations of nature with care and attention; but we must confess that, if we except fevers attended with *fixed* local inflammation, they were generally of the mixed kind; and we can find very few that did not appear to be, in the beginning, of an inflammatory tendency. Violent heat of the skin, a firm or hard pulse, red urine, local pains, and fullness of the eyes, we consider as symptoms of this kind. We are aware of one objection, and therefore add, that we now speak of the *general nature* of epidemics, not of the appearances in a few individuals. Let then Dr. Millar come out on this ground, adduce the various histories related by real observers, and collect with caution from them. The subject is not to be determined by general assertions or declamation.

There are indeed various circumstances which will account for the opinions of our author. A populous city, where the inhabitants are crowded, with little air, and less attention to the circumstances which may prevent or impede putrefaction; the physician, placed in a situation where the access of fevers is probably seldom observed, and frequently obliged to depend on the reports of ignorant, and sometimes of interested attendants: in these circumstances he probably sees nothing but those putrid symptoms which announce extreme debility; and, on these accounts, the beneficial effects of the bark may be more considerable. But, though this may excuse in some measure the confidence with which this remedy is recommended, it will not excuse the Doctor's want of candour, in extending his praises, without excepting different situations, and other appearances.

In a late Review, when considering Dr. Robertson's treatment of putrid fevers, we had occasion to state this question in an exact but comprehensive manner. It was not the opinion of the moment, but the result of some attention. The use of the bark we there confined to the malignant remittents, the fevers of camps and ships, sometimes of hospitals and prisons. We had too much respect for our medical readers to mention the distinguishing circumstances which are certainly sometimes obscure; but, that the distinction was well founded, appears from this fact, that the bark is more useful, the more nearly a fever approaches in its symptoms to an intermittent form. There certainly are malignant fevers, where it is pointedly and decidedly useful; there are others, where *alone* it is sometimes useless, and sometimes prejudicial. Reason and experience points out the distinction which we have made;

and



and we cannot recede from it, in consequence of a general, indiscriminate recommendation, though supported by positive assertions.

Dr. Millar will probably, in his turn, deny our assertion, that the bark is either useless or prejudicial in continued fevers of the putrid kind. It is therefore the opposition of facts, which must be determined by farther experience; but he will allow us to add, that if his cases resemble those which he has adduced under the title of Dr. Fothergill, Dr. Heberden, or Sir John Pringle's testimony, in favour of the bark, they will afford him very little assistance. Evidence, related in a manner so crude and so trifling, is at once a disgrace to the author, and an insult to the reader. There are other arguments on which we have as little dependence, as on the uncircumstantial facts which we have just reprehended. Fevers are, it seems, now less fatal than in some past periods; but is there no other change in their treatment? are there no variations in diet, and the manner of living? The same questions may be asked, when the records of public hospitals are produced with similar intentions. But, when our author adduces the testimony of practitioners which has been published, in support of his system, except Dr. Lettsom, all his evidence is taken from authors, who have treated of the malignant remittents.

His observations on the fevers of his majesty's navy are chiefly collected from Dr. Robertson's Journal, which has been already noticed, with respect, in our Review; and those, on infection, are useful; but we have met with nothing which has not been already mentioned by Dr. Lind, and other authors. Indeed this very concise account will not admit of a comparison with many which have been long since public.

Part of this volume contains an answer to our observations on his *Account of the Prevailing Diseases of Great Britain*. But, while we have no reason to retract a syllable which we there advanced, we must express our regret, that, in this more mature work, Dr. Millar seems not to have acquired either more candour or more knowledge. With this evidence of the irritability of our author, we should not have willingly opposed him, if we were not sensible that our duty required our interposition, and had not found that these opinions and this practice had already gained some ground, and been materially injurious to the public. As we neither wish for a dispute, nor fear it, we would advise him, in such circumstances, to adduce the experience of others rather than his own. Many practitioners have used the bark in continued fevers, and have given a candid testimony of its success.

*Observations on the Management of Diseases in the Army and Navy, during the American War; together with some Account of the Loss of Senegal, and of the Army at York in Virginia. In Reply to Dr. Monro. By John Millar, M.D. 4to. 3s. Johnston.*

**T**HIS Supplement to the preceding work appeared with it; and the publication of both was probably occasioned by Dr. Monro's Reply to Dr. Millar, in the last edition of the Diseases of the Army. We are by no means inclined to take any part in the dispute. The difference between the returns cited by Dr. Monro and Dr. Millar seems to depend on this circumstance, that the one includes the sick of the whole army, the other the returns only of the general hospitals; but it may be added, that Dr. Monro's are the public returns from the War-office, and that we cannot judge of those of Dr. Millar: from the nature of the information, his source must necessarily be secret. As we have already mentioned that epidemics are generally of the mixed kind, we may expect to find inflammatory symptoms in a greater degree in the robust soldier, exposed to cold and wet, than in the enervated inhabitant of a crowded and dirty city. Yet, in the last situation, the first appearance of fevers has been so imposing, their shape so questionable, that there is no one circumstance which has so much perplexed us, as the propriety of early bleeding in small quantities. Every author speaks of it, with so much hesitation, that there is little foundation to determine; and, though we have generally refrained from the lancet, we are not, at this moment, satisfied of the propriety of our conduct. A degree of inflammation probably increases the subsequent debility more than a cautious evacuation: but it is so difficult to determine in doubtful circumstances, the true path is so narrow, and so easily mistaken, that, on the whole, it has appeared more safe to abstain from a measure, which it is not easy to regulate. In the army however the diseases are very different; and an early bleeding, with an emetic and a laxative, will be often necessary. It adds no credit to Dr. Millar or his assistant, that at the end of one of his monthly returns, it is added, 'no antimonial medicine has been prescribed in the physician's department,' though there are thirteen remittent fevers, eleven consumptions, besides asthmas, dysenteries, &c. Dr. Millar next resumes his former subject; and from the late publications of Dr. Robertson, Dr. Dancer, and Mr. Rollo, endeavours to support the credit of the bark. There is a great deficiency in his candour, when Mr. Schotte is added to this list. In his last three patients, as we have already mentioned in that article, he quieted the vomiting by opium,



opium, and then gave the bark. In two it succeeded, and in the third failed; but, he very properly adds, that, 'at this time, the ravage of the disease had much abated; nor do I know, says he, whether the success is to be ascribed to this mode of treatment, or perhaps to a wholesome change taking place in the air' (p. 139). But we are informed by Dr. Millar, in a comparative table, 'Fevers treated with bleeding, &c. at Senegal, *all* died; with opium and bark, *all* recovered.'—Indignation has scarcely words to express its feelings at a misrepresentation so flagrant.

We must now take our leave of Dr. Millar, who has ascribed the surrender of York Town and Senegal to the number of sick, and consequently to the misconduct of the physicians. We shall probably again meet him; but should wish to find a greater degree of candour, and a more intimate acquaintance with the works of real observers.

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*Experiments and Observations in Electricity.* By Thomas Milner, M. D. 8vo. 2s. Cadell.

THE chief design of this short work is to explain the construction of a little portable apparatus, which may be readily made, and easily carried even in the pocket, to show the common properties of the electric fluid. Though no great power can be excited, yet the tender and exact balance of the different parts are proportioned to the weakness of the materials. We were consequently pleased with the neatness of the contrivances, and recommend the work to those gentlemen who think that philosophical amusements, and the exercise of a mechanical genius, are preferable to the pleasures of the chase, or of the bottle.

While we leave the particular descriptions to those who can follow them more satisfactorily by the assistance of the plates, it may be expected that we should enlarge on the opinions of the author, and the result of his experiments. The tendency of these is, to illustrate the Franklinian system of contrary states of electricity; a system which has flourished from opposition, and acquired strength even from those efforts which were calculated for its destruction. Every body, whether an electric or conductor, in our author's opinion, seems to be attracted by the electric power, though *properly* only the opposite powers attract each other; and, in every circumstance, the substance attracted is only influenced from its acquiring a state contrary to that of the substance which attracts. This general power of attraction is, in some respects, different from the received opinions; and it became necessary to account for

the seeming repulsion. In this part our author appears rather deficient, and probably the subject may be elucidated by his future labours. At present he seems to think, that the repulsion is owing to a change in the electricity of the air, which attracts, in a different direction, the body which appears to be repelled. Dr. Milner frequently mentions the 'permanent' and 'influential' electricities; if we properly understand him, he means a real difference in the sides of a phial, or a plate of glass, which they preserve, even after the superadded power, communicated by the charge, has been dissipated. This is a little inconsistent with the permeability of glass by this fluid, which he endeavours to support; but the force of several facts, as well as the explanation which it affords of Mr. Volta's electrophorus, induce him to adopt it. The opposite nature of the positive and negative powers, he thinks, produces the different phenomena of the universe; and that all our electrical experiments are only different modes of destroying or restoring the equilibrium,—he might have added, with their different appearances and effects.

We have given this short analysis of the more material parts of the present work, with the design of drawing the attention of those whose leisure will permit them to follow similar pursuits. The simplicity of our author's views, and the elegance of his experiments, deserve our commendations.

Dr. Milner has added some observations on the analogy between electricity and magnetism, to show those who are fond of deducing them from similar principles, that they are frequently opposite in their appearances. We shall transcribe them, as they seem to be equally intelligent and accurate.

Several writers have mentioned the similar appearances of electricity and magnetism, in particular experiments; and the analogy will be rendered still more striking, by considering the effects of an electric power on different substances, formed into proper needles. It is however the influential electricity, and that only in particular circumstances, which bears the nearest resemblance to magnetism. The experimental philosopher may find it of some use to remember these similitudes: but a regard to truth requires also his attention to other circumstances, which plainly show these powers to be essentially different. Some of the most remarkable circumstances of this kind are contained under the following particulars:

I. Electricity may be raised in a great variety of very different substances, and is then capable of being communicated to all bodies in general: but magnetism is confined to one particular kind of matter, both in its origin and communication.

II. The tourmalin, and a few other stones, may be excited by heat alone; though the generality of electric substances will not



act without friction. On the other hand, magnetism may be produced in the first instance by position alone, without either heat or friction.

III. Insulation is a necessary part of almost every electrical experiment, and no good conducting body can retain even a small degree of this power without it: but nothing of a similar nature appears to have the least relation either to the retention or communication of magnetism.

IV. A considerable degree of heat destroys both electricity and magnetism; and yet a moderate warmth, such as is found to be favourable to electricity in every respect, most certainly weakens a magnetic power, as appears from the late Mr. Canton's curious observations and experiments on the diurnal variation of the magnetic needle.

V. Moisture is particularly unfavourable to electricity; but magnetism is so far from being affected by it, that it is not in the least weakened by acting through water itself.

VI. Electricity is capable of acting through electric substances, but with some diminution of power; and this action is prevented by the interposition of every other body: Magnetism, on the contrary, cannot act through magnetic bodies, though it can through all others, and without the least diminution of power.

VII. Every pointed conducting body weakens an electric power at some distance; but nothing of the same kind has been observed in magnetism.

VIII. No substances are capable of retaining any considerable degree of electricity in the exhausted receiver of an air pump: but a magnetic body retains the whole of its power, and acts with equal force, whether it be surrounded with air or not.

IX. Electricity may be perceived by every one of the senses, either in its origin or communication: but the production and communication of magnetism are not attended with any sensible evidences; neither can it be certainly known whether a body has received a magnetic power or not, without bringing it to the test of some experiment, and observing how that body and others of the same kind mutually act upon each other.

X. Electricity appears to have no immediate relation to the poles of the earth: but polarity is the peculiar and distinguishing characteristic of magnetism.

XI. The whole of any substance may be made electrical, either positively or negatively: but in every communication of magnetism, there will always be a north and a south pole in the same body, be it ever so small.

XII. Electricity is either destroyed or weakened by every communication with other bodies: magnetism, on the contrary, is either preserved or strengthened by a communication of that power.

XIII. In electricity the positive and negative powers will in some cases preserve, and in other cases destroy each other: but, in magnetism, the poles of a different denomination will always preserve or strengthen each other.

XIV. The strengthening a magnetic power in any body, will only enable it to lift a heavier weight, or to attract and repel the different ends of a magnetic needle at a greater distance, or to communicate this power more readily to other bodies of the same kind: but the greatest degree of magnetism cannot produce the least resemblance to any of those various effects, which may be produced by the accumulation of an electric power. Electricity is fire itself, or so intimately united with it, that when it is collected in a sufficient quantity, and properly discharged, it becomes capable of firing different substances; of rending some bodies to pieces; of melting and calcining metals; of destroying both animal and vegetable life; and of producing all those wonderful effects, which have been observed to be produced by lightning.

Here it will be proper to state particularly, that a stroke of lightning has given polarity to steel; and that the same effect has been produced by sending a strong charge of electricity through a common sewing needle. This observation may help to establish the sameness of electricity and lightning, if it be taken in conjunction with a variety of other circumstances, in which they also agree: but as there is no other experimental proof of a real connection between electricity and magnetism, and as these powers appear to be unlike in so many other particulars, they ought certainly to be considered as being essentially different, unless future discoveries should produce some other unquestionable evidence of their connection, besides the solitary fact above mentioned; which can prove but little in the present case, especially if it be considered, that the stroke of a hammer will also communicate to steel the same polarity.

*De Arte Medendi apud priscos Musices Ope atque Carminum, Epistola ad Antonium Relban, M.D. Coll. Med. Lond. Soc. et Cens. Editio altera & auctior. 8vo. 11. 62. Bowen.*

THIS pamphlet is republished from the first edition printed at Utrecht, with some additions, and a flattering dedication to the earl of Shelburne, on his literary and political talents. It is the work of Michael Gaspar, well known on the continent for his classical attainments; but we never heard that he has attended to medicine as a science, and find no proof of it in the present epistle. Since the days of the good Cornelius Scriblerus, we have heard no recommendation of the medical powers of music, except a confused story of a dancing-master having been cured of the rheumatism by it; though



though the relief is to be attributed rather to the exercise and the perspiration excited (for he was induced, as usual, to dance), than to the melody. The boasted tales of its powers curing the tarantuli are now well known to have been merely fictions.

Our author proceeds, from the earliest periods, to bring proofs of the efficacy of this remedy; and we may presume that he does not forget Saul and David, the double office of Apollo, as god of medicine and music, or the harp in the hands of Esculapius. The only remark which seems of consequence enough to deserve attention is, that Hippocrates produced another revolution in medicine, besides separating it from philosophy, viz. discarding the powers of music, in which he had little skill. But this story has not the shadow of foundation. Medicine was, at that time, studied as a branch of philosophy; though the philosophy of these ages was confined to visionary speculations, and very seldom reduced to practice. If therefore we except the limited influence of one family, whose powers were certainly inconsiderable, the practice of medicine, before the time of Hippocrates, was guided more by superstition than reason, and the remedies were rather amulets than medicines.

In fact, the records of these remote ages are not worth the attention of a moment; but there is another and more evident error of our author, if he be really serious in this defence, which we ought to mention. The greater part of his authorities show that *charms*, rather than *music*, were employed, since the word *charmen*, and its correspondent word in Greek, *καρμῶν*, are more frequently used in the former than in the latter sense. Cato's celebrated charm is still preserved;

but our author attributes *his* cures to music, though his opposition to every refinement and every elegant art is sufficiently notorious. If we except the credulous Pliny, all the authorities are adduced from the poets, and the history of the fabulous ages.

In the passages quoted, Pliny sometimes means charms, and sometimes music; but he is a very uncertain authority in doubtful cases, even though he speaks *de re sibi haud incognita*. This is, we confess, a character he is thought not to merit; for his own relations are supposed to be true; but let us hear his words; the passage is not singular:—

*Ipse in Africa vidi mutatum in marem nuptiarum die L. Copricium.* (Lib. vii. c. 4.)

Perhaps we have already been more diffuse than this author, though eloquent and learned, deserves. We may allow soft music to induce sleep, or, by exciting the attention, to draw it from pain; but we can go no farther: all beyond is

prejudice and fable. This Letter, as well as the dedication, is written with remarkable elegance, and chiefly on that account may be suspected of irony. If fiction is the essence of poetry, we may say with the author in his motto, 'nihil hic nisi carmina desunt.'

*Flora Dietetica; or, History of Esculent Plants, both Domestic and Foreign. By Charles Bryant, of Norwich. 8vo. 7s. White.*

WE do not, in general, approve of methods which give the semblance of learning, without its weight and substance. It is scarcely an object worthy the attention of a botanist, to furnish only the Linnæan names, or to enable any female precieuse, or her companion, to order the roots of the *Solanum tuberosum*, or the leaves of the *cichoreum endivia*, as sauces for their dinner. It is less exceptionable to recommend a 'competent' knowledge of botany, to assist the travelling, or amuse and instruct the stationary gentleman; but this knowledge must be sought at the fountain head, by patient study and diligent investigation of the original language. Mr. Bryant, whom we respect as a botanist, will excuse our freedom, when he perceives it is intended to promote the science which he cultivates and admires; but, though we see little foundation in the reasons which seem to have induced him to undertake this work, yet we still think the attempt laudable, and the execution accurate. Every one will contemplate with eager curiosity the endeavours of different nations, either urged by the severity of climate, or the accidental inclemency of seasons, in a pursuit so essential to their existence: it raises superior feelings to find that we can look above a failing harvest, or a deficient vintage; that we are protected by a Providence, which has scattered food with a boundless profusion, sheltered it in woods, and even concealed it under the earth. It is useful also to collect the various facts, recorded by different authors into one view, and to examine the different pretensions of each viand, which either solicits the appetite, or scantily supplies, in the hour of necessity, the deficient meal. We might receive a philosophical repast, by pursuing man from the situation in which a mild climate furnishes the proper food, and a contented mind aims at no more, to regions where nature on the one hand charlishly denies, and, on the other, is lavish of her bounties. Even one spot, in the different aeras and various states of opulence and society, might afford sufficient room for reflecting on the smallness of our wants, and the profuseness of our desires. But this is not the proper place to indulge speculations of



this kind; it is necessary rather to attend to the work before us.

Mr. Bryant has classed the esculent plants according to the parts which are the objects of our attention. He has given the generic and trivial names of Linnæus, with the concise and appropriated descriptions of Caspar Bauhine, in his Pinax; a method which we highly approve, and would recommend, instead of the string of synonyms which are sometimes added. He has next given a botanical description of the plant; and subjoined the methods of preparing it for food, with its effects on the body, when they are not purely alimentary. In this way he has collected a concise and comprehensive account of every dietetic vegetable, and there is reason to believe it will be generally acceptable. We have already said that the execution deserves our praises, yet ought to add, that there are some defects, and a few errors. The medical virtues of the different vegetables are sometimes exaggerated, though they are never materially misrepresented; and a few articles are less explicit than we had expected to find them. The sensible qualities also of many vegetables are omitted.

The defects however are by no means numerous, and seldom deserve the name of blemishes: we have chiefly mentioned them, to induce Mr. Bryant to review these parts of his work, in another edition. We shall insert, as a specimen, his account of the common onion; we have preserved it for the sake of our fair readers, who may avail themselves of the concluding advice.

*Allium cepa.* Common Onion! Lin. Sp. pl. 431. *Cepa vulgaris.* Bauh. Pin. 71.

From whence this was first brought into Europe is not known, but that it is natural to Africa is beyond a doubt, it being evident that onions were eaten by the Egyptians above two thousand years before Christ, and they make a great part of their constant food to this day in Egypt. Dr. Hasselquist says, it is not to be wondered at that the Israelites should long for them, after they had left this place, for whoever has tasted onions in Egypt must allow, that none can be had better in any part of the universe: here, he goes on, they are sweet, in other countries they are nauseous and strong; here they are soft, whereas in the North and other parts they are hard, and their coats so compact, that they are difficult to digest. They eat them roasted, cut into four pieces, with some bits of roasted meat, which the Turks call kebab; and with this dish they are so delighted, that they wish to enjoy it in paradise. They likewise make a soup of them in Egypt, which Hasselquist says is one of the best dishes he ever eat. The many ways of dressing onions in England are known to every family, but in re-

gard to wholesomeness, there is certainly no method equal to boiling, as thus they are rendered mild, of easy digestion, and go off without leaving those heats in the stomach and bowels, which they are apt to do any other way. Their nature is to attenuate thick, viscid juices, consequently a plentiful use of them in cold phlegmatic constitutions, must prove beneficial. Many people shun them on account of the strong disagreeable smell they communicate to the breath; this may be remedied by eating a few raw parsley leaves immediately after, which will effectually overcome the scent of the onions, and cause them to sit more easy on the stomach.

We think his account of the probable effects of the seeds of the dog-rose deserve attention, as we have frequently administered the cow-itch, sometimes called *filiqua hirsuta*, with success: we shall therefore transcribe it.

*Rosa canina.* Dogs Rose. Lin. Sp. pl. 704. *Rosa sylvestris vulgaris*, flore odorato incarnato. Bauh. Pin. 483.

The dog-rose is known to every one, by being so common in woods and hedges. These berries when mellowed by the frost have a very grateful acid flavour, which tempt many to eat them crude from the bush; but this is a bad practice, for the seeds are surrounded by a hairy, bristly substance, which if swallowed with the pulp, will, by pricking and vellicating the coats of the stomach and bowels, many times occasion sickness, and an itching uneasiness in the fundament. To avoid this therefore, the pulp should be carefully cleansed of this matter before eaten. There is a conserve of heps kept in the shops, which is deemed good in consumptions and disorders of the breast; and in coughs, from tickling defluxions of rheum.

Notwithstanding what has been observed of the bad effects often attending the swallowing that bristly matter found in heps, yet it is probable this substance might be turned to advantage in some disorders, if judiciously managed; for it is nearly of the same nature to the celebrated cow-itch, so much in use among the Indians for killing of worms, and which they scrape off the pods of the *dolichos urens*. Their manner of giving the cow-itch, is to mix a small quantity of it with syrup or honey, and then eat it for two or three succeeding mornings fasting; this done, they take a dose of rhubarb, and if there be worms, it seldom fails to bring them away. It is plain from this, that the creatures receive their death by being stung and pricked with the cow-itch; and if this matter were given in the same manner, why should it not have the same effect, as it is much of the same prickly stinging nature?

Mr. Bryant has mentioned the *calla palustris*, but observes, that he is not informed how it is usually eaten. Its insipid taste is commonly succeeded by a pungency, as from the arum; and as in the arum this stimulating quality is lost by boiling, though cold water has little effect in extracting it. It



is more viscid than the arum, keeps better without turning to meal, and is more nutrient. It is eaten, we are informed, by some of the northern nations, after long boiling, and generally, if possible, after it has been kept for some time.

Mr. Bryant is commonly very short in describing different preparations of his esculent plants, though it would have rendered his book more valuable, if he had collected information of this kind. The best sources that we have met with are the Swedish and German authors.

We might enlarge this account with more specimens, but cannot easily give a better idea of a book, which consists chiefly of separate and detached articles. We may add, that it contains the several species of fruit-trees, described with accuracy from his own observation, and the best authorities; and even the humbler berries are considered with attention. We shall conclude this article with extracting some observations, which appear to us to deserve a very extensive circulation.

Before I quit this article of wheat, I shall make an observation or two that may prove of some benefit to the generality of farmers. The common allowance of seed to sow an acre is not less than three bushels, a quantity, as Miller observes, which is certainly too much, but not perhaps altogether, for the reasons he gives. If the husbandman has ten combs per acre, for his three bushels of seed, he thinks he has had an excellent crop, nor does he set himself about reflecting how much missed coming to perfection. Now if all the grain he sowed vegetated, and produced only two tolerable good ears each, and each ear contained only forty grains (which is rating them full low), the produce of one grain sown would be eighty, and the increase from the three bushels would be 240 bushels, or 60 combs; consequently when he reaps but ten combs, he has the profit of only half a bushel of his seed. It stands the farmer in hand then to be careful about sowing his seed corn, and not throw it away to birds and other vermin, and which he frequently does, by sowing it too late. In order to prevent the ravages of these creatures, he ought to have all his wheat into ground by the end of October at longest, before the birds find a scarcity of food; for while there remains any part of the last year's offal on the fields, they will not trouble themselves much about the new sown grain; but as soon as they feel themselves pinched, they repair by flights to the fresh sown lands, and pick up all they can possibly get at; and though the seeds in general may have vegetated, yet if they be not strongly rooted, they make little difficulty of pulling them up by their leaves, and then twitch off the grain. Several sorts of birds are dexterous at this business, but larks in particular are quite adepts

at it; a small parcel of them will soon make a place as bare as it was before sown. Now this waste never happens, when there is plenty of food for these animals, nor can it be performed when the corn is much advanced, it then requiring more than their strength to draw it up, so that if it be sown in time, and before these creatures are distressed, it suffers little or nothing, but from the severity of hard seasons. From what has been observed it must appear evident, that a much less quantity of seed sown early, properly scattered, and well covered, will be productive of as large a crop as the usual allowance is, and probably a larger, for the grains being less liable to be disturbed by the birds when striking root, and their roots standing more distinct, they will be better supplied with nourishment, enabled to support their stems, and bring their seed to greater perfection.

*Μετρικὰ Τινὰ Μονοστροφικά. Metrica quædam Monostrophica.*  
*Auctore Georgio Isaaco Huntingford, A.M. e Coll. Nov. Oxon.*  
 Soc. 8vo. 2s. Nichols.

THIS gentleman vindicates himself very ably, in his Preface, from any charge which might be brought against him for the irregularity of measure ('carmina ἀτακτὰ & ἀπολελυμένα') which he has adopted in some of his poetical compositions. To this purpose he alleges the sanction of Aristotle, the authority of old scholiasts, and the example of some eminent Grecian poets. Even modern ones, who have thought proper to display their talents in that language, and made use of a diversified metre, are quoted on the occasion; though we cannot see any great utility in their testimony, and much less so in that of Milton and Dryden, who are brought forward to depose in favour of this mode of composition. So much learning is indeed exhibited in its defence, that one would be almost tempted to suppose, regularity of measure had in some cases been purposely avoided, to shew by what high authority the neglect of it might be defended.

These little poems are on various subjects, and possess different kinds of merit. In some the author emulates the daring flights of Pindar; in others, the golden simplicity of the Teian bard. His irregular, or monostrophic odes, as he chooses to style them, are generally sublime without bombast, and his Anacreontics smooth and easy without flatness or insipidity. Of the first, we think the following stanza on Peace a striking example. The last line is peculiarly beautiful, and in its flow perfectly corresponds with the scene it describes.



“Διὸς ἰδὼν παρὶ δρόσῳ,  
 Ηἰκνύει παρὶ δρόσῳ Χάος κελευσμάτος,  
 Ὅσα μύρια κείμεν ἀβυσσῶν  
 Ἐπὶ κοσμοῦ παρὰ τελευταῖς  
 Εἰ φάβερὸς κειμένων δεινῶν οὐρανοῦ εἴλετο,  
 Εἰ βροντὴ κτύπει, ἐκπαραγέσθι δὲ κυμαίνοντες,  
 Σιγαῖν ὅταν κελεύσῃς,  
 Τπειρὰ δὲ ἀσπίδος αἰθρῆς,  
 Κοιμῶντων ἀνέμων ῥέε λεία θάλασσα γαλήνη.”

When Chaos first heard thy commanding voice, as thou  
 satest on the throne of Jove, the innumerable elements in the  
 vast abyss were restored to order. If the fearful darkness of  
 clouds horribly involves the sky, if the thunder roars, and the  
 waves of the sea make a noise; at thy bidding the pure ex-  
 tended æther is disclosed, the winds are lulled to sleep, and  
 the smooth waters flow in tranquillity.—In proof of our au-  
 thor's success in the familiar and less elevated line of metrical  
 composition, we shall annex his Ode to a musical friend.

“Ω φίλε, θρεμμα Μουσῶν,  
 Καλῶς, καλῶς αἰδεῖς.  
 Γηθεῖ καρὸν ἐντός.  
 Μελωδία γλυκὴν  
 Σὺς ἐκχυθεῖσα γλωσσῆς  
 Ψυχὴν ἐρῶσαν ἡμῶν  
 Περὶ ληϊμένην δαμάζει.  
 Νῦν, νῦν παρ' ὠτὰ χερδῶν  
 Ἀκνέαι ἐτ' ἦχος  
 Πας ἡδύς, οὐ Σὺ χερσὶ  
 Κεκασμεναῖσι ψάλλεις  
 Ἐτευξας. ἦχος ἡδύς  
 Ἐτ' εἰν ἀκνέτ' ὡσιν.  
 Μελος παλιν δὸς ἄλλον,  
 Τέλος τε μῆποτ' ἐγώ.  
 “Τι σοὶ θελῶν χαρίζεαι  
 Ἐγὼ, ἀμύστος εἴπειν  
 Δυναμῶμαι; Ἄλλα θυμὸς  
 Λυραὶ λαβεῖν αἰτνεῖν,  
 Καὶ βαρβίτον κροτήσας  
 Οὐκ ἀξίως περ αἰνῶν  
 Ποιῶ τὰ νεῦρα φωνεῖν,  
 “Ω φίλε, θρεμμα Μουσῶν,  
 “Καλῶς, καλῶς αἰδεῖς.”

We hazard the following translation, to give some idea of the sweetness and elegance which, with a few exceptions, distinguish the original.

Friend, favourite of th' Aonian train,  
Sweet, sweetly flows thy vocal strain!  
My inmost heart its transport owns,  
Whene'er these soft melodious tones  
Breathe from thy lips, whose powers controul  
The feelings of th' enraptur'd soul.  
Now to thy voice the chords reply  
In mingled notes of harmony:  
These chords, which fashion'd by thy skill,  
Resound obedient to the will.  
Hark, how the numbers, sweet and clear,  
Still vibrate in my list'ning ear!  
Awake, awake thy voice again;  
Nor ever cease the pleasing strain.  
Unskill'd, unblest with music's art,  
What meed can I to thee impart?  
My mind impulsive bids me seize  
The chorded lyre, to sound thy praise:  
But to thy praise, and my desire,  
Unequal sounds the chorded lyre.  
How sweetly flows thy vocal strain,  
Friend, favourite of th' Aonian train!

Though the author is not always perfectly correct, and some few instances occur of defective metre, his intimate knowledge of the Greek language, the study of which he wishes to promote, is sufficiently apparent. On the whole, the execution is entitled to our approbation.

*A Treatise on the Immutability of Moral Truth.* By Catharine Macaulay Graham. 8vo. 6s. Robinson.

THE author of this Treatise is so well known in the republic of letters, that it would be impertinent in us to make any remarks, at this time, on her literary abilities. It may be sufficient to observe, that, though she now appears in a new character, that of a metaphysician, she discovers that comprehensive mind, that strong imagination, and those virtues and liberal principles, which she has displayed on former occasions.

In the Preface to this work Mrs. Graham seems to think that the decline of rational religion is, in a great measure, owing to the doctrines of some late writers, who have misrepresented the true source of moral differences; some having fixed the



the principles of moral virtue in mere human sentiment, on the subject of utility; whilst others have taught, that moral obligations are not founded on the real difference of things, but take their rise from the laws of God, as they are found in his revealed will, or as they are impressed on the consciousness of his rational creatures.

The former opinion is attended with mischievous consequences, which lie open to the reason of every attentive and intelligent mind; and the latter, our author thinks (though veiled from common observation by a sentiment, which carries a seeming respect for the transcendent power of the Deity, and the allegiance which is due from the creature to the Creator) insensibly strips God of some of his most glorious attributes, and leads men into the worst kind of scepticism, if not into downright atheism, by weakening those strong principles of natural reason, which support the belief of revelation, the providential government of God, and the sanction of future rewards and punishments.

In opposition to these notions, our ingenious metaphysician endeavours to prove, that God is omnipotent in the most extensive sense of the word; and that his works and commands are founded in righteousness, and not in mere will.

The world has been represented by many distinguished writers, as being in a rapid state of progressive improvement; but our author shews, in a very lively manner, that if one vice has decreased, another has gained ground; that though men agree to spare one another, for considerations of mutual security, they immediately violate this agreement, whenever their interest tempts them to cut one another's throats; in short, that the present times have no reason to boast of having made any progress in that higher part of civilization, which affects the rational interest of man, and constitutes the excellence of his nature.

Having estimated the present state of morals, the author, in the second chapter, proceeds to examine archbishop King's hypothesis concerning the origin of natural evil.

Dr. King, she says, sets out with a dogmatical denial of that catholic opinion in the creed of the moralist, viz. a necessary and essential difference of things, a fitness and unfitness, a proportion and disproportion, a moral beauty and a moral deformity, an immutable right and wrong, necessarily independent on the will of every being, created or uncreated; and thus, at one stroke, strips the Deity of the glorious attribute of wisdom. For, she asks, of what use is wisdom, and in what manner can it be exercised, if there is such an ab-

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solate indifference in the nature of things, as to leave no grounds for judicious election ?

Dr. King, continues this writer, having thus robbed the Deity of wisdom, and reduced his attributes to those of a physical nature, accompanied with a kind of intelligent mechanical ability, proceeds to establish moral good and evil on the footing of will, dependent on the pleasure of God, and to be read by man through the medium of suffering and enjoyment; that is, upon the doctor's hypothesis, the moral colour of actions take their complexion solely from their consequence; and thus, if there were no punishment, there would be no vice.

The archbishop having likewise asserted, that the terrestrial globe was necessary to complete the harmony and the perfection of the proposed system of creation; that such a creature as man is a necessary link in the chain of gradation; that what we call evil is not real evil, but only some want of a greater good: that sensitive existence, on any terms, is a blessing, &c. our discerning metaphysician observes, that this hypothesis is liable to the following objections:

First, it introduces an uncertainty concerning the nature of virtue; and by taking away the essential and eternal discriminations of moral good and evil, of just and unjust, and reducing these to arbitrary productions of the divine will, or rules and modifications of human prudence and sagacity, it takes away one regular, simple, and universal rule of action for all intelligent nature; and thereby weakens those hopes of man, and that prospect of retribution and ultimate happiness, which receive their strongest support from the immutable nature of justice, and a determinate idea of this principle in the divine character.

The second objection to be made to this hypothesis is, that it is highly derogatory to God to represent him as forming the creation, not for the only end which appears suitable to his moral perfections, viz. the bestowing happiness on sensitive existence, but the rendering this end in a manner subordinate to a motive of a very inferior nature, a certain kind of self-gratification, arising from the exertion of infinite intelligence and power, in the forming a complete system of creation, as far as it respects the principles of symmetry and harmony, on which the perfection of beauty is supposed to depend, and sacrificing to this end all that moral excellence which lies in the benevolent consideration of bestowing on all ranks of sensitive beings every happiness, of which their nature is capable. And, thirdly, it seems to weaken that notion of irresistible power, which forms one of the most exalted attributes of the Deity, viz. such a sufficient capability as is superior to every obstacle, but what implies a positive contradiction.



The following observations seem to be founded in reason and the nature of things :

The question, therefore, whether it was more agreeable to infinite benevolence to create all creatures as perfect as the nature of a created being is capable of, will admit of a more satisfactory answer, than that such a gradation is necessary to that harmony which the divine mind conceived to form the beauty of his system. God undoubtedly intended to bestow on all his sensitive creatures the greatest possible happiness that their natures are capable of receiving ; and the harmony, therefore, of such a gradation, is a subordinate cause to the intended benevolent effect : nor can it be supposed, that such a benevolent intention can be an inferior consideration in the divine mind. No ; the more probable reason to be assigned for such a gradation, because more correspondent to the ideas of perfect wisdom and perfect benevolence, is, that a being produced in the highest degree of natural perfection which a creature is capable of, and still preserving the same excellence, will not enjoy as much happiness in the main, as if he was placed in a much inferior state at first, by which he becomes capable of experiencing a perpetual accession of unknown pleasures, whereby the blessings he enjoyed in a pre-existent state, by a comparative view, are made to add a superior relish to the present more advantageous state, and thus enables him to enjoy a continued series of fresh satisfaction and new delights, whilst he is continually approaching nearer and nearer to that perfection, the excellence of which he has been thus taught to prize ; and to relish a supreme good by that rule of comparison, whereby we learn to estimate the worth of all possessions ; and as finite, however amplified, can never reach infinity or absolute perfection, so some enraptured imaginations have set no bounds to the inexhaustible power and goodness of God.

The limits of our Review will not allow us to attend the author through all her observations on archbishop King, lord Bolingbroke, and other writers, on the subject of a future state, the doctrines of liberty and necessity, the stoic philosophy, &c. we must therefore refer those readers, who wish to enter more deeply into these disquisitions, to Mrs. Graham's performance. We shall however subjoin two short extracts, which contain her sentiments concerning liberty and necessity.

Dr. King, says this learned lady, in endeavouring to emancipate the divine will from what he erroneously regards as a derogatory compulsion, degrades the divine attributes of wisdom and goodness into a principle of interested action, and destroys that principle of reasoning on which the immutability of God's counsels depends. But in him there is no variableness nor shadow of turning ; and the reason is plain, for, through all the wide extent of possible differences in the nature of things, there

there can be but one best, and that one best will be perceived by infinite intelligence, and become the permanent election of infinite wisdom, and infinite goodness. The subjection to this necessity is the peculiar glory of the divine character; and as the nature of that absolute freedom which the doctor supposes, were it a possible quality, would reflect disgrace on every rational being who possessed it: so the nearer approaches which all finite creatures make to the perfections of their Creator, the more they will be brought under the blessed subjection of being necessarily determined in their volitions, by right principles of conduct.

After she had finished this Treatise, Mrs. Graham observes, she had the pleasure to find, that her notions on this subject coincided with those of Dr. Clarke.

‘That very learned divine, in treating on the subject of the freedom of the omnipotent agent, whilst he confutes the weak and shallow arguments used by Spinoza, in his attempt to prove that God created all things by the impulse of a physical necessity, strongly asserts, that the moral perfections of God subjects him to a kind of moral necessity, to act, in all things, agreeably to the transcendent excellence of his nature. And, indeed, this is so necessary to every idea of immutability in the divine conduct, and so consonant to every comprehensive idea of infinite power and infinite perfection, that it is surprising that the heat of contention should ever have induced any intelligent reasoner to deny it.’

In the perusal of this work, the reader, who is not acquainted with metaphysical subjects, will sometimes find himself perplexed and embarrassed, like a traveller in one of the woods of America. But let him not be discouraged. His attention will be exercised, which is in itself a profitable employment; and he will find many observations, which will reward him for his trouble. The obscurity, for which some ignorant readers and lazy critics have censured this Treatise, will be attended with no inconvenience to those, who, like the author, can pursue a fugitive idea through ‘periods of a mile.’

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*Dissertations, Moral and Critical. By James Beattie, LL. D.*  
4to. 181. in Boards. Cadell.

**T**HESE Dissertations, as the author tells us, were at first composed in a different form, being part of a course of prelections read to those young gentlemen, whom it was his business to initiate in the elements of moral science. This, he hopes, will account for the plainness of style; for the frequent introduction of practical and serious observations; for a  
more



more general use of the pronouns I and You, than is perhaps quite proper in discourses addressed to the public; and for a greater variety of illustration than would have been requisite, if his hearers had been of riper years, or more accustomed to abstract enquiry.

The reader, he says, will be disappointed, if he expect to find in this book any nice metaphysical theories, or other matters of doubtful disputation. 'Such things the author is not unacquainted with; but they suit not his ideas of moral teaching, and he has laid them aside long ago. His aim is to inure young minds to habits of attentive observation; to guard them against the influence of bad principles, and to set before them such views of nature, and such plain and practical truths, as may at once improve the heart and the understanding, and amuse and elevate the fancy.'

The subjects of his first essay are Memory and Imagination. In discoursing on the former, he marks the difference between memory and imagination; secondly, takes notice of some of the more conspicuous laws and appearances of memory; thirdly, proposes rules for its improvement; and, fourthly, makes some observations on the memory of brutes.

Among the methods proposed for the improvement of memory, the author recommends habitual attention, a methodical course of study, recollection, writing, conversation, &c. Under this head he gives some useful directions for committing sermons to memory. But, he thinks, that those preachers, who, after much practice, cannot commit a discourse to memory in less than two days, should never attempt it. 'If, continues he, I am to judge by my own feelings, and trust to the declaration of many persons of candour and sensibility, I must say, that sermons in the mouth of a good reader have a more powerful energy than those that are spoken without book. The pathos may be less vehement perhaps, but it is more solemn, and seems better adapted to the place and to the subject.'

In treating of memory, the author illustrates his reasoning by examples: but he seems to pay too much deference to apocryphal stories.

'I have read, he says, of a learned author, who, on receiving a blow on the head by a folio dropping from its shelf, lost all his learning, and was obliged to study the *alphabet* a second time.'

'There goes a story of another great scholar, who, by a like incident, was deprived, not of all his learning, but only of his *Greek*.'

'I know a clergyman, who, upon recovering from a fit of apoplexy, was found to have forgotten all the transactions of

the *four* years immediately preceding, but remembered, as well as even what had happened before that period. On the memory of brutes he observes, that the inhabitants of the water have memory, we cannot doubt, if we believe what Pliny, in his *Natural History*, Bernier, in his account of *Indostan*, and Martial, in some of his *Epigrams*, have mentioned \*, of fishes kept in ponds, that had learned to appear, in order to be fed, when called by their respective names.

We can easily imagine that fishes might appear, in order to be fed; but we cannot so readily believe that fishes of any sort were ever acquainted with their respective names.

Pliny and other ancient writers have transmitted us many fables. In this light we consider what is related of Mithridates in the following passage: 'That four languages do not exceed the capacity of an ordinary man, will not be denied by those, who believe with Pliny and Quintilian, that Mithridates understood *two and twenty*.

Aulus Gellius tells us, that Mithridates perfectly understood the languages of twenty-five nations; 'Quinque & viginti gentium linguas percalluit.' Lib. xvii. 17. But the extent of his knowledge in this respect is utterly incredible, unless we suppose that most of these nations were the Ponticæ gentes†, and the languages only kindred dialects.

We have some doubts respecting the accuracy of the following stories:

When a rider has fallen from his horse in a deep river, there have been instances of that noble creature taking hold with his teeth, and dragging him alive to land by the skirts of the coat. And let me here, for the honour of another noble creature, mention a fact, which was never before recorded, and which happened not many years ago, within a few miles of Aberdeen.—As a gentleman was walking across the Dee when it was frozen, the ice gave way in the middle of the river, and down he sunk, but kept himself from being carried away in the current, by grasping his gun, which had fallen athwart the opening. A dog, who attended him, after many fruitless attempts to rescue his master, ran to a neighbouring village, and took hold of the coat of the first person he met. The man was alarmed, and would have disengaged himself, but the dog regarded him with a look so kind and so significant, and endeavoured to pull him along with so gentle a violence, that he began to think there might be something extraordinary in the case, and suffered himself to be conducted by the animal, who brought him to his master, in time to save his life.

\* Plin. x. 89. Mart. iv. 30. x. 30.

† Florus.



The author subjoins this note :

The person thus preserved, whose name was Irvine, died about the year 1778. His story has been much talked of in the neighbourhood. I give it, as it was told by himself to a relation of his, a gentleman of honour and learning, and my particular friend, from whom I had it, and who read and approved of this account, before it went to press.

Stories, like this of the dog, sometimes arise from trivial circumstances, amplified and embellished every time they are told.

The author speaks too favourably of the following silly observation.

‘Infants a month old smile in their sleep : and I have heard good women remark, that the innocent babe is then favoured with some glorious vision. But that a babe should have visions or dreams, before it has ideas, can hardly be imagined. This is probably the effect, not of thought, but of some bodily feeling, or merely of some transient contraction or expansion of the muscles. Certain it is, that no smiles are more captivating.’

‘Pull the old grandmother out of your entrails,’ ought to be the constant and prevailing maxim of every philosopher, every author, and every man of sense. Apocryphical stories may be cited, but they should be stigmatized with marks of reprobation. This is a duty which a philosophical writer owes to reason, to literature, to the sciences, and to the taste and genius of an enlightened age.

In this dissertation the author gives us many ingenious remarks on the association of ideas, on beauty, on taste, and its improvement, and, lastly, on the regulation of the imagination.

The associating principles, which he enumerates, are five, resemblance, contrariety, nearness of situation, the relation of cause and effect, and custom or habit.

With respect to taste, he supposes it to consist of these five qualities : 1. a lively and correct imagination ; 2. the power of distinct apprehension ; 3. the capacity of being easily, strongly, and agreeably affected with sublimity, beauty, harmony, exact imitation, &c. 4. sympathy or sensibility of heart ; and, 5. judgment, or good sense, which is the principal thing, and may not very improperly be said to comprehend all the rest.

Speaking of the ornamental or mechanical rules of composition, and particularly of the unities of time and place in tra-

gedies, the author makes these remarks, in justification of Shakspeare and other dramatic writers, who have neglected these unities.

While we sit in the theatre, it is as easy for us to reconcile our minds to the shifting of the scene, from the town to the country, or from one country to another, as it is, at our entrance, to suppose the stage a certain place in Rome or Egypt. And if we can persuade ourselves that the player, whom we see, and whose name and person we know, has on a sudden become Cato, or Cæsar, or any other ancient hero; we may as well believe, that the evening which we pass in a playhouse comprehends the space of several days or years.

But in fact there is not, in dramatical representation, that strict probability which the critics talk of. We never mistake the actor for the person whose character he bears; we never imagine ourselves in a foreign country, or carried back into the ages of antiquity: our pleasure is derived from other sources, and from this chiefly, that we know the whole to be a fiction. The unities of time and place are violated by Shakspeare, in every one of his plays. He often shifts the scene from one country to another; and the time of his action is not always limited to days or weeks, but extends frequently to months, and even to years. Yet these irregularities are not offensive to those who understand him. And hence, I think, we may infer, that the rule, which enjoins the dramatic poet to a rigid observance of the unities of time and place, is not an essential, but a mechanical rule of composition.

The subject of our author's third disquisition is *Dreaming*. Without attempting to explore the efficient cause of this phenomenon, he contents himself with making a few unconnected remarks upon it, chiefly with a view to point out its final cause, and to obviate those superstitions in regard to it, which have sometimes troubled weak minds.

Baxter's hypothesis concerning dreaming has been favoured by some late writers. But Dr. Beattie thinks it improbable, for the following reasons.

First, I see no reason for believing, that the Deity would employ "millions of spiritual creatures" in such an office, as that of prompting our ordinary dreams. Secondly, I cannot conceive how those creatures should be affected, in such an operation, by the external air, or by the state of our health, which are known to have great influence on our thoughts, both in sleep, and when we are awake. And, thirdly, from what we know of the rapidity of fancy when awake, we need not suppose any foreign impulse requisite to produce the various phenomena of dreaming; as the soul seems to possess in herself powers sufficient for that purpose. Fever, melancholy, and many other diseases, give a wildness to the thoughts of waking men, equal, or even superior, to what happens in sleep. If

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the agency of unseen beings is not supposed to produce the first, why should we have recourse to it, in order to account for the last? — But it is urged, that in sleep the soul is passive, and haunted by visions, which she would gladly get rid of if she could. And it may be urged in answer, for it is not less true, that persons afflicted with anxiety and melancholy too often find, to their sad experience, that their soul is almost equally passive, when they are awake; for that they are, even then, haunted with tormenting thoughts, from which all their powers of reason, all the exertions of their will, and all the exhortations of their friends, cannot effectually relieve them.

The difficulty, not to say the impossibility, of forming any rational hypothesis concerning the cause of dreams, is a mortifying consideration. The phenomenon recurs to us almost every night, yet it always eludes our comprehension. When it presents itself, we find ourselves incapable of reflection, and are hurried away by a power which we cannot controul. In this crisis we seem to resemble those persons who are disordered in their intellects, and not masters of themselves. The imagination roves from scene to scene, and from one object to another, while our senses are locked up, and our reasoning faculty is oppressed, and obstructed in its operations. We may throw ourselves into a similar kind of reverie, if, when we lie down to sleep, we fix our attention on some imaginary prospect, and travel over in idea some well-known journey, or some long track of country. While the imagination is thus occupied, we gradually lose the command of our thoughts, and in a few moments perhaps feel ourselves engaged in some visionary adventure, or under the influence of a real dream.

The chief difficulty is to account for the liveliness of those exhibitions, which are presented to the fancy in dreams. We find, that on the loss of one of the senses, that of sight especially, many persons have enjoyed some of the rest in greater perfection. It is not improbable therefore, but that the imagination may be more active, when reason, memory, and judgment, are suspended. This, we find, is really the case with those who are in a delirium, or labouring under a fit of insanity. Their imagination is vivid, wild, and desultory; inasmuch that it has been said, 'Great wits to madness nearly are allied.'

On this principle we may perhaps, in some measure, account for the vivacity of those ideas which we conceive in our dreams, when the imagination pursues her excursions through the ideal world, and is not checked in her flight by the understanding.

The subject of Dr. Beattie's third Dissertation is the Theory of Language, that is, of the Origin and Nature of Speech, and Universal Grammar.

In the former part of this essay the author very accurately examines the numbers or measures of English poetry.

It has been a question frequently debated, On what does the measure of English verses depend? Some have said, on the quantity of syllables. But this, he observes, is not true:

‘ Since an English heroic line may consist of five short and five long syllables, or of nine short and one long syllable. In fact, this matter is regulated by the emphasis. In our verse there must be in every foot one emphatic syllable, whether long or short: and the alternate succession of emphatic and non-emphatic syllables, is as essential to English numbers, as that of long and short is to the Latin and Greek.’

On which he makes these two remarks.

‘ First, though our poetry derives its measure from the emphasis of syllables, and the Greek and Latin theirs from the quantity, we must not look upon the former as barbarous, and upon the latter as alone susceptible of true harmony. The only inference we can reasonably make is, that Greek and Latin verses are more uniform than our's in respect of time. The rhythm of sounds may be marked by the distinction of loud and soft, as well as by that of long and short.

‘ Secondly, though those terms in ancient grammar, trocheus, iambus, dactylus, anapæstus, spondeus, &c. do properly signify certain limited arrangements of long and short syllables, it can do no harm to adopt them in English prosody. For our emphatic syllables are often long, and our non-emphatic syllables are often short; and where this is the case, we use these terms without impropriety. And where this is not the case, if we call that foot a trochee (for example) which consists of an emphatic and non-emphatic syllable, both of them short, as *body*, we do not depart from the original meaning of words more than is frequently done, without blame, on other occasions.’

The author, having given some account of various sorts of measure, which have been established in English poetry; having explained what he considers as the proper nature and use of emphasis and accent, and made some remarks on the scripture history of Babel, the art of writing, the invention of printing, &c. proceeds to the subject of universal grammar.

The following observations on the tenses of past time, denoting two sorts of actions, complete or perfect, and incomplete or imperfect, deserve the attention of every classical reader,



Eneas, in Virgil, speaking of the destruction of Troy, relates, that, after he had conducted his father and followers to a place of safety, he returned alone to the burning city, in quest of his wife Creusa, who was missing. He went first to his own house, thinking she might have wandered thither; but there, he says,

“*Irruerant Danaï, et tectum omne tenebant;*”  
 “the Greeks had rushed in, and were possessing the whole house.”  
 Observe the effect of the plusquamperfect, and imperfect, tenses. The Greeks *had rushed in, irruerant*; that action was over, and had been completed before he came: but the act of possessing the house, *tenebant*, was not over, nor finished, but still continuing. This example is taken notice of by Mr. Harris. I shall give another from Virgil, and one from Ovid.

In the account of the paintings, which Eneas is surprised to find in the temple of Juno at Carthage, they being all, it seems, on the subject of the Trojan war, the poet mentions the following circumstance:

“*Ter circum Iliacos raptaverat Hectora muros,  
 Exanimumque auro corpus vendebat Achilles:*”

which informs us both of the action of the picture, and of the event that was supposed to have preceded it. “Achilles *had dragged* the body of Hector three times round the walls of Troy;”—this is the previous event;—“and *was selling*,” that is, was represented in the act of delivering, “the body to Priam, and receiving the ransom.” All this is easily conceived, and an excellent subject it is for a picture. But if, without distinguishing the tenses, we were to understand the passage as Dryden has translated it,

“Thrice round the walls of Troy Achilles drew  
 The corpse of Hector, whom in fight he slew,” &c.  
 we should be inclined to think that Virgil knew very little of the laws, or of the powers, of painting. For, according to this interpretation, Achilles must have been painted in the act of dragging Hector three times round Troy, and also in the act of delivering the body to Priam. Pitt, Trapp, and Ogilvie, in their translations, have fallen into the same impropriety; a proof, that the theory of tenses has not always been attended to, even by men of learning.

When Dido had just struck the fatal blow, and lay in the agonies of death, the behaviour of her sister, as described by Dryden, is somewhat extraordinary. Anna was at a little distance from the pile, on which lay the unfortunate queen: but, hearing of what had happened, she ran in distraction to the place, and addressed Dido in a long speech. That being ended,

“*—She mounts the pile with eager haste,  
 And in her arms the dying queen embrac'd;*”

Her temples chafed, and her own garments tore \*  
 To stanch the streaming blood, and cleanse the gore."  
 The speech is very fine, and very pathetic; in Virgil, at least, it is so; but, as it appears in Dryden (and Pitt commits the same mistake), never was any thing of the kind more unseasonable. The poor lady was dying, the blood streaming from her wound; and yet this affectionate sister (for such we know she was) would not attempt any thing for her relief, till she had declaimed for fourteen lines together.—But, from Virgil's own account we learn, that Anna did not lose a moment. She had mounted the lofty pile, and was holding her dying sister to her bosom, and weeping, and endeavouring to stop the effusion of blood, all the while that those passionate exclamations were breaking from her.

— Sic fata, gradus evaserat altos  
 Semianimemque sinu germanam amplexa fovebat  
 Cum gemitu, atque atros sicabat velle cruores."

This the English poet would have known, if he had not confounded the imperfect tense with the perfect and plusquamperfect, and supposed them all to mark the same sort of time and of action. Similar blunders are frequent in Dryden, and in all the other translators of Virgil that I have seen.

In Ovid, when the flood was abated, Deucalion, having concluded a very tender speech to Pyrrha with this sentiment, "It has pleased the Gods, that we are the only survivors of the whole human race;" the poet adds,

"*Dixerat; et flebant: placuit celeste precari  
 Numen.*"—

"He had done speaking, and they were weeping; when it occurred to them to implore the aid of the goddess of the place."

The speech had been for some time concluded; then followed a pause, during which they wept in silence; and, while they were weeping, they formed this pious resolution. The plusquamperfect, followed by the imperfect, is here very emphatical, and gives in two words an exact view of the behaviour of this forlorn pair, which would be in a great measure lost, if, confounding the tenses in English, we were to translate it, as is vulgarly done, "He spoke, and they wept;" which marks neither the continuance of the last action, nor that it was subsequent to the first.—If children are not well instructed in the nature of the several tenses, it is impossible for them to enter into the delicacies of classical expression.

The Latins elegantly use this imperfect tense to signify actions that are customary, and often repeated. Thus *dicebat*

"Considering Dido's condition, to chafe her temples was absurd, if not cruel: and to insinuate, that Anna on this occasion did not spare her own cloaths, is ridiculously trifling. Virgil says not a word of chafing temples, or of tearing garments."

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may imply, *he was saying*, or *he was wont to say*; the same with *solebat dicere*. For actions that have become habitual, or which are frequently repeated, may be said to be always going on, and may therefore with philosophic propriety be expressed by the imperfect tense.

It also deserves notice, that the ancient painters and statuary, both Greek and Latin, made use of this tense, when they put their names to their performances. On a famous statue of Hercules, still extant, are inscribed these words, *Glycon Athenaios epoiei*, *Glycon Atheniensis faciebat*, *Glycon an Athenian was making it*. The phrase was thought modest, because it implied, that the artist had indeed been at work upon the statue, but did not pretend to say that he had finished it, or made it complete; which would have been the meaning, if he had given it in the aorist *epoiese*, *fecit*, *made it*. Some of our printers have adopted the same tense at the beginning or end of their books; "*Excudebat* Henricus Stephanus: *Excudebant* Robertus et Andreas Foulis."

Cesar, whose narrative is not less distinguished by its modesty, than his actions were by their greatness, often uses the imperfect, in speaking of himself, where I think he would have used the perfect, if he had been speaking of another. This must have been wonderfully pleasing to a Roman, who would be much more sensible of the delicacy than we are. Indeed the best ancient and modern critics, particularly Cicero, Quintilian, and Roger Ascham, speak with a sort of rapture on the exquisite propriety of Cesar's style. And as to his narrative, though he pretended to nothing more than to write a journal or diary (for such is the meaning of the word, which is vulgarly translated *commentaries*)—as to his narrative, I say, Cicero declares, that no man in his senses will ever attempt to improve it. The frequency of these imperfects in Cesar has, if I mistake not, another use; for it keeps the reader continually in mind, that the book was written from day to day, *in the midst of business*, and while the transactions there recorded might be said rather *to be going on*, than to be completed.

From these few examples it appears, that the imperfect and plusquamperfect are very useful, and may be the source of much elegant expression; and that if we are not taught to distinguish, with regard to meaning as well as form, these tenses from each other, and the preterit from both, we cannot pretend to understand, much less to translate, any good classic author.

This Dissertation contains many other useful and ingenious observations on grammar, though not many, perhaps, that can properly be called new.

The fourth essay treats of Fable and Romance, and gives us an entertaining view of the feudal system, the crusades, chivalry,

chivalry, the writers of historical allegory, moral allegory, romances, and novels.

The following account of a very popular book, the *Adventures of Robinson Crusoe*, will be acceptable to some of our readers.

Alexander Selkirk, a Scotch mariner, happened, by some accident which I forget, to be left in the uninhabited island of Juan Fernandes, in the South Seas. Here he continued four years alone, without any other means of supporting life than by running down goats, and killing such other animals as he could come at. To defend himself from danger during the night, he built a house of stones rudely put together, which a gentleman, who had been in it (for it was extant when Anson arrived there), described to me as so very small, that one person could with difficulty crawl in, and stretch himself at length. Selkirk was delivered by an English vessel, and returned home. A late French writer says, he had become so fond of the savage state, that he was unwilling to quit it. But that is not true. The French writer either confounds the real story of Selkirk with the fabulous account of one Philip Quarl, written after *Robinson Crusoe*, of which it is a paltry imitation; or wilfully misrepresents the fact, in order to justify, as far as he is able, an idle conceit, which, since the time of Rousseau, has been in fashion amongst infidel and affected theorists on the continent, that savage life is most natural to us, and that the more a man resembles a brute in his mind, body, and behaviour, the happier he becomes, and the more perfect.—Selkirk was advised to get his story put in writing, and published. Being illiterate himself, he told every thing he could remember to Daniel Defoe, a professed author of considerable note, who, instead of doing justice to the poor man, is said to have applied these materials to his own use, by making them the groundwork of *Robinson Crusoe*, which he soon after published, and which, being very popular, brought him a good deal of money.

Some have thought that a love-tale is necessary to make a romance interesting. But *Robinson Crusoe*, though there is nothing of love in it, is one of the most interesting narratives that ever was written; at least in all that part which relates to the desert island: being founded on a passion still more prevalent than love, the desire of self-preservation, and therefore likely to engage the curiosity of every class of readers, both old and young, both learned and unlearned.

I am willing to believe that Defoe shared the profits of this publication with the poor seaman; for there is an air of humanity in it, which one would not expect from an author who is an arrant cheat. In the preface to his second volume, he speaks feelingly enough of the harm done him by those who had abridged the first, in order to reduce the price. “The injury, says he, which these men do to the *proprietors* of works, is a practice all honest men abhor: and they believe they may challenge



challenge them to show the difference between that and robbing on the highway, or breaking open a house. If they cannot show any difference in the crime, they will find it hard to show why there should be any difference in the punishment. Is it to be imagined that any man of common prudence would talk in this way, if he were conscious that he himself might be proved guilty of that very dishonesty which he so severely condemns?

Be this however as it may, for I have no authority to affirm any thing on either side, Robinson Crusoe must be allowed, by the most rigid moralist, to be one of those novels, which one may read, not only with pleasure, but also with profit. It breathes throughout a spirit of piety and benevolence: it sets in a very striking light, as I have elsewhere observed, the importance of the mechanic arts, which they, who know not what it is to be without them, are so apt to undervalue: it fixes in the mind a lively idea of the horrors of solitude, and, consequently, of the sweets of social life, and of the blessings we derive from conversation, and mutual aid: and it shows, how, by labouring with one's own hands, one may secure independence, and open for one's self many sources of health and amusement. I agree, therefore, with Rousseau, that it is one of the best books that can be put in the hands of children. — The style is plain, but not elegant, nor perfectly grammatical: and the second part of the story is tiresome.

In the fifth Dissertation the author points out the happy effects which arise from the matrimonial union, and the attachment of kindred. Among other questions, which occur on this subject, he considers that of polygamy. The number of males which are born is found to be nearly equal to the number of females, being as 20 to 19, according to some computations, or as 14 to 13, according to others. To keep the two sexes equal with respect to number, and to provide for the casualties, to which men are liable in war and by sea, a small supply of males must be necessary. This exact proportion, says our author, is a striking proof of the care of a wise Providence for the preservation of the human race; and is moreover a perpetual miracle (if I may so speak) to declare, both that the union of the sexes is natural, and that polygamy is not.

The last Essay consists of Illustrations on Sublimity. On this subject, as well as on every other, the author displays great vivacity of imagination, and correctness of taste and judgement.

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*Naval Architecture; or, the Rudiments and Rules of Ship-Building, exemplified in a Series of Draughts and Plans. With Observations tending to the further Improvement of that important Art.*

*By Marmaduke Stalkart. Folio. 6l. 6s. Sewell.*

**N**AVAL architecture being entirely foreign to literary pursuits, and yet a subject of great national importance, one of our friends, by means of his connexions, had an opportunity of procuring the opinion of a gentleman of extensive knowledge and approved judgment, to whom therefore we are indebted for the observations on this production.

YOU ask me for my opinion of Mr. Stalkart's large work on Naval Architecture. I have perused the treatise and the plans with attention, and shall freely communicate to you my sentiments.

You need not be told, that in naval architecture there are no fixed principles and rules for all the dimensions and properties required in a ship, from which the artist must never depart. He is left, in a great measure, to his discretion; and he naturally becomes by habit attached to his own plan, whatever it may be. This is a difficulty in the way of improvement, not easily to be surmounted; and of this the author seems to be fully convinced.

He is aware that there is a great deal to be wished, and much to be suffered, by trusting to the speculations of the theorist; but in an art where there is so much avowed imperfection, and so great an object to be acquired by excellence, it will always be considered as wise and necessary to collect the opinions of men who have made the subject their study, that by reducing their inventions to experiment, it may be found whether they are merely ingenious chimeras, or valuable improvements.

In the theory of the art there are no fixed and positive principles, established by demonstration, and confirmed by use. There is hardly a rule sanctified by common consent, but the artist is left to the exercise of his own opinion; and this generally becomes so rooted by habit, as to resist innovation, however specious. Undoubtedly there is great reason for caution on the one hand, as there is for enterprize on the other. We ought to be as anxious to preserve the merits that are determined, as to overcome the acknowledged insufficiencies. It is our duty and our interest to trust with circumspection, and make fair trials of such propositions as are favourable in their appearance. This may surely be done with little danger, and with much benefit.

The French have gone before us in naval architecture. We adhere, as a nation, to the practice which has so long obtained;



obtained; and in all probability we adhere to it from the erroneous principle, that the success of our marine is as much to be imputed to the construction of our ships, as to the bravery and discipline of our men. The purpose of Mr. Stalkartt, in the splendid work before me, is to give a set of rules for drawing and laying down all the essential timbers in a ship; and he pursues his subject in a regular series, giving, ~~in the~~ commencement, his instructions with studied minuteness, and leading the artist forward in a gradual progression, from the simple to the more difficult departments of the work. This is a thing which was very much wanted in the art of ship-building. The treatises published before this were at once obsolete and defective. The last and best is that of Mungo Murray, which contained several useful propositions; but the art had gone farther than the author. He was better acquainted with the theory of navigation than with the practice of ship-building. He could teach his scholars the art of trigonometry, and had the credit of being well versed in the mathematics; but there requires something more than the mere philosophy of mechanics to enable a man to give practical instructions for laying down the timbers of a ship in the mould-loft. Mr. Stalkartt, in the whole of his treatise, speaks entirely as an artist, and his instructions will no doubt be valuable. If he had joined the flights of philosophy to his practical knowledge, and had been as conversant with the principles of motion as he is with the mechanism of a ship, his treatise would have been more argumentative, but I do not know whether it would also have been more useful. He might have been tempted to wander too much from the solid standard of experience, and have sported with chimeras, which in this subject, of all others, are dangerous and unwise. The whole of his work is not taken up with instructions for the disposition of the timbers merely. He proposes several new principles of material consequence in the fabric of a ship, and which deserve the most attentive consideration. His first idea is, that of placing the midship-bend, or dead-flat, that is, the greatest breadth, at the distance of one-third of the length of the ship from the head, instead of being, as it is now, near the centre. Another proposition is, that the water-lines should be fair, instead of hollow. A third, that the ship should be constructed to sail on an even keel. There are several other alterations suggested, of inferior importance; but I shall examine his work in its order.

His series is regular and progressive. He begins with the long-boat, for the purpose of shewing the principle of *whet-moulding*. From this he proceeds to the yacht, the sloop, the  
forty-

forty-four-gun ship, and the seventy-four-gun ship. He then introduces the cutter, as being the most proper to explain a proposed method of drawing similar bodies; and he concludes his original design with a new and very ingenious rule for finding the true ending of lines.

The first book then treats of the art of whole-moulding, which, says he, "is a method of forming the principal part of a ship, vessel or boat, by the use of a mould made to the midship-bend, and continued as far afore and abaft the same, as the form of the midship-bend and curve of the rising line are suitably disposed to each other, in order to make the body fair."

Before the art of ship-building was brought to its present perfection, the method of whole-moulding was in great repute, and much practised by the unskilful, as well as by those whose business required expedition; but since some late improvements have been made by diligent study and application to the theory of the art, it has been less approved of in the construction of ships, whose form of the midship-bend has been required to be such, that if they were whole moulded well forward and aft, they would not only be almost incapable of rising in a heavy sea, but be deprived, in a great measure, of the proper use of their rudder; for, by whole moulding, no more is narrowed at the floor than at the main breadth; nor must the rising line lift any more than the lower height-of-breadth; which, according to the form of some midship-bends, would make a very disagreeable body at the foremost and aftermost floors, if the whole moulding were continued so far.

Perhaps it would not have been necessary to be so minute as he is in this book on a principle which the good sense of the artist has exploded, if the author had not made it a sort of introduction to all that comes after. Here we have the first steps of ship-building; and he explains to the young artist the simplest and surest methods of taking off and transferring the square-timbers, water-lines, ribband-lines, cant and square bevellings, the square timbers, forming the boarding-lines, and bevelling the heels of the cant-timbers, &c. These directions are to be remembered through the more important parts, and are to be considered as the rudiments of the art. He has exemplified them in a plate, containing figures of the sheer-draught, the body plan, the half-breadth plan, &c. of the long-boat. These figures, as well indeed as all the plates, are executed with an uncommon degree of correctness and skill; and make, without question, his book truly valuable as a collection of plans, which, on account of their accuracy, may be referred to, in every possible case that can occur in ship-building.

Book



Book II. gives the construction of the yacht, — Designed, says the author, to be an expeditious sailer, without any other stowage than is actually necessary for accommodation; but which is to be, at the same time, what is termed a stiff sea-boat, able to carry sail sufficient to speed her to some place of safety, and to keep her off from a lee-shore. These qualities in a yacht, when happily united, render her a most useful as well as agreeable appendage to the more noble structures of naval architecture.

Here it is that the author introduces his new principles, and applies them to the construction of this draught, as well as the more important ones which follow. Mr. Stalkart, as I have said, does not indulge himself much in reasoning: he states his proposition with great humility and diffidence. The following are the author's words on the proposition of his new ideas.

‘My present design is not to steer either by ancient or modern rules, unless where they are supported by reason and experiment. It was formerly the opinion of artists, that the station of the midship bend should, in every instance, be in the centre of the ship, under the supposition that she would then pitch the least, and consequently ride the safer at anchor. But experience, the only true guide, has taught the present age to move the midship-bend somewhat forward, by which the ship will meet with less resistance, as the fluid will sooner pass the greatest breadth, and thereby have the freer passage to the rudder. As the pressure of water to the sides of the ship is equal to the weight of the vessel, it follows that the more forward the midship-bend is placed, if the ship begins immediately to narrow, the greater is the length, and consequently the effect of the pressure of water, to increase her velocity. It seems also reasonable to believe, that the ship will ride at anchor with more ease if the midship-bend is placed forward; since, when it is fixed in the centre, and the form of the body is circular, inclining to be clean both forward and aft, the ship will then be buoyed up in the middle, and for want of bearing forward and aft, must unavoidably pitch. It would seem an inconsistency to many, to construct a ship to sail on an even keel, as it is termed, (that is, that the ship, when trimmed for sailing, should have her keel parallel to the surface of the water) and yet to place the midship-bend, or greatest breadth, very forward. For they imagine, that a ship so intended to sail, ought, when launched, to have an equal bearing fore and aft, in order that she may, before any ballast is put on board, be on an even keel; and they believe that the ballast, if not placed equally fore and aft, must inevitably strain the sheer of the ship.

‘Granting it may be so, experience convinces us it is not materially detrimental; for many ships, when launched, will swim four feet by the stern, more or less; and yet when trimmed

med for sailing, are found to go fastest on an even keel, or thereabouts, and I imagine they receive little or no damage, if carefully flowed.

Some ships are too clear abaft, and require to sail by the stern, because they have no bearing for fifteen or twenty feet from aft, till the buttock is brought well in the water; and even then, for want of being fuller lower down, when the sea leaves the buttock, the overhanging of the stern will strain the ship, and occasions her to tremble, till the next sea, with redoubled force, strike the buttock as the stern is falling, and shake the ship, in which case it will be well if some part of the mast is not carried away by the shock: however, it is certain this kind of motion must retard the velocity.

This accident seldom happens, but, as it is a dangerous one, the more precaution should be used in the construction of a ship.

With respect to such ships as I have before mentioned, that ought to sail four feet by the stern, on account of their insufficiency abaft, it is my opinion, that if a line was drawn to be well with the lower side of the keel, in the middle of the ship, and two feet up at the aft part of the stern-post, from the lower side of the keel, and that part of the keel and deadwood were to be taken off, and placed under the forepart of the keel, with the after end that was before, to be forward, so as to make the lower part of the keel strait as before, the ship would then sail something faster, and be the better; for when a ship is brought so much down by the stern, the keel not being parallel to the surface of the water (to which the ship generally sails parallel), must occasion a pressure at the under side of the keel, equal to the weight of water displaced by the breadth of the keel, and to the angle which the keel makes with the surface of the water in its own length. Though this may appear to be of little consequence with regard to obstructing the ship's way through the water, yet, in part, it may prove the reason that so many ships, differently constructed, are found to sail best on an even keel, although many of them were designed by the builder, or draughtsman, to sail by the stern.

Having considered every obstruction, and finding the result rather in favour of an even keel, I shall conclude upon constructing the draught in such a manner as will most likely answer the purpose. By that means the water-lines will be parallel to the keel, and will thereby be less troublesome to the artist, as well as more properly placed to form the body; for when the square timbers, and the water-lines being square to the timber, properly agree with each other, and are fair curves, the ribband-lines, or any other section, will likewise be fair, or as fair as they should be, allowing the preference to the water-lines and square timbers.

When the water-lines are not designed to be parallel to the keel, the draught is generally formed by ribband-lines, because  
the



the water-lines differing in height at every timber, require the square-timbers to be formed before the height can be set off; and, when the water-lines are run, if not approved of, much of the work must be done over again; it being the general opinion, to pay more regard to the water-lines than to the ribband-lines; for many ships are constructed by ribband-lines only, which seem to produce fair curves, yet, forward and aft especially, they make a very unfair body, which is detrimental to the ship.

Having observed that the stationing of the midship-bend is at present entirely undetermined among the generality of ship-builders, I shall give my option for placing it one third from forward on the line A B, fig. 1. supposing that position to be the nearest to a medium that can be: for was it placed farther forward, the ship might have inconvenience from it when going to windward; by being too full to divide the fluid, she must consequently receive the whole shock of the sea; and if the midship bend were farther aft she might, when going large, by being too sharp forward, plunge and bury herself in the sea.

This is the introduction of his new principles, which, I must acknowlege, as a professional man, appear to be rational, and to have probability. This is my opinion on the first view; but the author certainly has not gone so fully into the defence of his proposition as he ought to have done, considering that he has in this instance to combat with habits and prejudices, rendered sacred to the builders by the experience which they have had of the certainty at least of the old doctrine. I think Mr. Stalkartt to blame in this, because I am sure there are many arguments in his favour which he has omitted to use, and the modesty is scarcely pardonable, which, on such a subject, deters a man from advancing fairly, and discussing the merits of his opinion with the boldness which belongs to rational speculation. He should have shewn the mathematics of his plan, and tried how far he was supported by the rules and doctrines of general mechanics, and the philosophy of motion. Instead of this he has, with a few introductory thoughts, proceeded to delineate his idea on the plan annexed, and leaves it entirely to the test and reasoning of experiment. It is not my province to prove it in this letter, by experiment. To do that I must imitate Mr. Stalkartt himself, who, I understand, has built a boat, in which he has carried his doctrine to the extreme, and farther than he proposes to adventure in the Treatise before us. Let me for the present confine myself to reasoning on the subject.

It strikes the mind on the first view of the matter, that a vessel whose midship-bend is in the centre, is more liable to

accidents in bad weather; for the extreme ends having inferior and both equal weight, she is likely to pitch, and to undergo an incessant see-saw motion, which must strain her timbers, and keep her from the steadiness which is so essential to safety in an agitated sea. Place the great weight more forward, and you give solidity to the bow, where the action of the waves is chiefly to be felt. Were a ship to be constructed solely for the purpose of lying at anchor, perhaps it might be wise to give her uniform weight; but when we consider that the two great objects in view are swiftness and capacity, we should enquire whether it is not necessary to swiftness that the weight should be forward. The ship is to be impelled forward. We call in all the powers of the wind to push her in this direction; and surely, if we argue from comparison with other bodies constructed to move in the fluid either of air or water, we must conclude that it is necessary to the force and evenness of her motion, that the principal weight should be near the head. Could an arrow be darted forwards with equal rapidity, if the weight was in the centre? Would it not shiver in the air? Mr. Stalkartt says,

‘By a philosophical discussion it might be maintained, that this disposition of the midship-bend is clearly pointed out by nature, in her formation of animals destined to move in the element of water. It is not a novel observation, that the form of a fish is the best calculated for velocity; but though the observation has been made, the example remains yet to be followed. We seem to require something more than the evidence of nature, to overcome the errors of prejudice.’

It has been contended that we ought not to trust, in the construction of a ship, to the example set us in the formation of animals; and that if we were, there would be such latitude in the rule as to leave it still to the discretion of the builder, since animals differ so much in their forms as to afford no precise pattern of the shape the best calculated for velocity. This I peremptorily deny. In all the diversities of nature, the principle which Mr. Stalkartt mentions is clearly observed to prevail; and it is an indisputable fact, that the fish most remarkable for swiftness are those most remarkable for the construction which the author recommends; on the contrary, the sluggish fish are the farthest removed from that form. But fish do not swim on the surface of the water, and therefore, say they, we cannot draw any evidence from them. This objection would be good if the question depended simply on the air; but the object is to find the form the best calculated for cutting its way through, and dissipating the fluid of water; and it is perfectly indifferent whether the force is to be exerted,

and



and the motion performed, at the bottom or at the surface of the water. But there are analogies in nature precisely the same. The nautilus, from which, if we believe history, the first idea of venturing on the deep was taken, sails with its extreme breadth forward; and all animals remarkable for celerity in the fluid of air are equally distinguished for the fullness toward the head, rather than in the middle. What bird of flight can be mentioned as an exception to this rule? Observe also how the plain sense and experience of the mariner, who acts without the light of philosophy, corroborates this opinion. If he has to take a mast, plank, or timber in tow, he drags it by the thick end; a raft of timber is conducted in the same manner. The angle is more obtuse which cuts the fluid, but the weight is the great advantage; and, as the author observes, the principal impediment lies in the distance from the head to the extreme breadth. To shorten that distance is therefore the first thing to be obtained, by which the water will pass more easily to the rudder.

A breadth in proportion to the weight, gives the ship a larger body of water for her support; and this is an advantage which, in the present construction of bodies, cannot be enjoyed: I must therefore declare my full acquiescence in the proposition of Mr. Stalkart, consistent with the various properties of the vessel.

In regard to the new principle of using fair instead of hollow water-lines, the advantages in my opinion are material. The curves described by the hollow water-lines must necessarily retard the ship, for as the water clings to the vessel, the unevenness of the sides makes the line longer, and the water is also more disturbed; it is agitated in different ways by the inflections of the hollow lines, and this commotion is all against her speed. By fair lines she divides and leaves the fluid with more ease, the agitation of the waves being more simple, and all in a similar direction.

Mr. Stalkart's argument for his proposal of making her on an even keel, are substantial. But this is not a new suggestion; it has been practised in various instances, and found to succeed. The plate to this book contains ten figures; the elevation or sheer-draught; horizontal sections, or half-breadth lines; the body plan, or view of the timbers which compose it; the stern; moulding of the fashion-piece; cant-timbers; the plan of the upper-deck; the plan of the quarter-deck; the plan of the lower-deck; and the plan of the cabin-floor. In the construction of the yacht, Mr. Stalkart proposes a square-tuck, but to be round forward at the ends. This kind of tuck has been generally considered

as difficult, from the method heretofore used; but I think the author's plan is simple and easy. He describes it in the following words.

'Observe then, says he, that the aft-part of the square-tuck, bounded by the wing-transom and fashion-piece, is meant to represent part of a cylinder; the upper-side of the wing-transom, were it strait and square from the rabbet of the stern-post, would be part of the circumference of the end of the cylinder; and the aft-part of the rabbet of the stern-post would be a strait line at the outside square from the end, and parallel to the middle line or centre.

'If the rabbet of the stern-post was perpendicular, the aft-side of the wing-transom and fashion-pieces would be likewise perpendicular, when properly fixed in their places; otherwise all lines that should be drawn parallel to the middle-line of the stern-post, even to the end of the wing-transom, would be out of winding with the middle-line of the stern-post, just as strait parallel pillars, placed perpendicularly in the form of a cylinder, would all be out of winding with each other.'

The third book contains the plan for the construction of a sloop of war.

'The first thing, says he, to be considered in the plan of a ship of war is, the principal dimensions. For the determination of this we have no fixed and certain rule, because the proportions of ships must always vary with the objects which they are intended to pursue; and in all vessels the proportion must be calculated by the different services for which they are designed. The yacht, plate II. was chiefly constructed for sailing, and for accommodating the requisites of pleasure; on this account she admitted of being shallow above water; but as the sloop requires to have one deck reserved for guns, which must be disposed clear of the water during the action, with an allowance of moderate winds, there must be more depth of topside to answer that purpose.

'The principal dimensions, by being left unconfined to rules, so frequently lead artists into capital errors, that it is necessary to introduce some proportions to regulate their judgments, such as may be applicable to ships of the same class, whose experience has rendered them worthy of recommendation. For the sloop then, let the extreme length be 98 feet 10 inches, breadth moulded  $\frac{7}{8}$  of the extreme length; height of the top-breadth at the lowest place  $\frac{17}{16}$ ; height of the wing-transom  $\frac{1}{6}$  of the extreme length; and the height of the load-water-line be about  $\frac{3}{4}$  of the top-breadth at the lowest place.'

In the construction of the sloop he follows his principle described in the yacht; and the subject is illustrated by three plates, No. III. IV. V.—III. explaining the construction. IV. containing the fore and after-part of the former plate,

laid



laid off for the use of the mould-loft, in ten figures: the parts of the vessel laid off are, the stern frame, the hawse-pieces, the taffrail and quarter-pieces.—V. contains the bottom and top-side of the sloop laid off, with the planks shifted, and clearly explained.

[To be continued.]

*Poetical Remains of James I. King of Scotland.* 8vo. 3s.

Balfour, Edinburgh; Cadell, London.

THIS volume begins with a Historical and Critical Dissertation on the Life and Writings of James I. King of Scotland; a prince who is celebrated by several of his contemporaries, as one of the most illustrious persons of the age in which he lived. His natural and acquired endowments were equally conspicuous. He is affirmed to have excelled in almost every branch of the learning of those times, and in every accomplishment of a gentleman. In all athletic exercises, particularly in the use of the sword and spear, he was eminently expert. To his knowledge of the Greek and Roman languages, the latter of which he wrote with ease, he joined not only the philosophy then received in Europe, but a proficiency in poetry and music. So much did he excel in the scientific as well as the practical part of music, that he is reckoned the first reformer, if not the inventor, of the Scottish songs. To use the words of an eminent historian of the last century, 'there was nothing within the circle of the liberal arts that he had not applied his mind unto, seeming rather born to letters than instructed.'

In the Dissertation prefixed by the editor, we meet with a general account of the history of James, from his captivity by the English, at an early period, to the time of his barbarous assassination, on the 13th of February, 1436-7. But those occurrences being generally known, we shall content ourselves with subscribing to the justness of the eulogium pronounced by the editor on this accomplished monarch, viz. that as a poet, patriot, and lawgiver, and the civilizer of the manners of his people, no prince in history deserves more to be revered by his country than James I. king of Scotland.

The editor afterwards proceeds to take notice of the works of king James I. He observes, that the only poems extant of this royal bard, at least those which can with certainty be ascertained his productions, are 'Christ's Kirk of the Green,' and that which is entitled 'The King's Quair.' The former of these poems has been ascribed by several writers to James V. who was also a poet; but the editor has, in our opinion,

refuted this idea, by clear and convincing arguments. To give our readers a full view of the controversy, we shall present them with what the editor has advanced on the subject. He begins with stating the authorities which ascribe this poem to king James V.

"The oldest of these, as far as I have been able to discover, is that of bishop Edmund Gibson, who, anno 1691, published an edition at Oxford of the poem of Christ's Kirk of the Green, with learned notes. The title which the bishop gave his book is "Christ's Kirk on the Green, composed, as is supposed, by king James V."—And in an elegant Latin preface to this poem, he thus writes, "Gratulor tibi lector, and Musis, regem in Parnasso, non infeliciter somniantem; de Jacobi, regis nominis apud Scotus Quinti, familia, eruditione, scientia militari, consulendi sunt historicorum annales; principem autem hunc poemam deperiisse, nil mirum, commune id illi, cum augustissimis aliis viris, qui haud pauci carmen in deliciis habuere."

"The next authority is the editor of the last edition of Gavin Douglas's translation of Virgil's *Æneis*, published at Edinburgh anno 1710, who, in his preface, thus mentions this poem; "with notes published at Oxford some years ago, by a celebrated writer on the famous poem of king James V. entitled *Christ's Kirk on the Green*."

"On the same side is Tanner, bishop of St. Asaph, who, in his *Bibliotheca Britannico-Hibernica*, sub voce Jacobi Quinti, regis Scotiae, mentions the poem of Christ's Kirk of the Green as written by that prince, and adds, "Edidit, notisque illustravit cl. Edmond Gibson, Oxon. 1691." Tanner's *Bibliotheca* was published so late as the year 1748.

"These are the only ancient and positive authorities that I have seen, which attribute this poem to king James V. I shall sum up the whole arguments on that side of the question from an author of still greater weight than any of the above, that is, the learned sir David Dalrymple, lord Hailes, whose opinion, although he candidly does not decide, is on the same side with the above authors.

"Lord Hailes argues thus.—First, Major, in his life of king James I. mentions several pieces written by that prince, but says nothing of Christ's Kirk of the Green.—Secondly, The poem mentions "Peebles at the Play," which lord Hailes is of opinion relates to a more modern æra than the age of king James I.—And, lastly, bishop Gibson and bishop Tanner, and the editor of Gavin Douglas's *Virgil*, all agree in attributing the poem of Christ's Kirk of the Green to king James V.

"I shall attempt to answer these arguments in their order; and to the first.—That Major, who mentions two or three pieces, said to be composed by king James I. does not mention the poem of Christ's Kirk, is an argument entirely negative,



tive, and can infer no direct conclusion that king James I. might not have been the author of that poem, as well as of several other pieces not mentioned by Major, of which, for certain, he was the author, viz. *Rythmi Latine, et de Musica*, mentioned by Dempster, and some other poems mentioned by other authors. Major does not pretend to give a full enumeration of the works of James, but, after mentioning two or three of his pieces, adds, *Et plurimi codices, adhuc apud Scotos.*—To the second, as to the æra of the plays of Peebles. The anniversary games or plays at Peebles are of so high antiquity, that, at this day, it is only from tradition, joined to a few remains of antiquity, that we can form any conjecture respecting the age of their institution, or even trace the vestiges of what these games were. Any argument, therefore, deduced from the æra of the institution of the plays at Peebles, inclines to the opposite side from lord Hailes. That this town, situated on the banks of the Tweed, in a pastoral country, abounding with game, was much resorted to by our ancient Scottish princes, is certain. King Alexander III. is said to have had a hunting seat here; the place where it stood is still pointed out. We are told by Boetius, that the monastery of Cross Church, now in ruins, was built by that prince; and anciently our princes occasionally took up their residence in the religious houses. Contiguous to it is a piece of ground, of old surrounded with walls, and still called the King's Orchard; and on the opposite side of the river is the King's Green. The plays were probably the golf, a game peculiar to the Scots, foot-ball, and shooting for prizes with bow and arrow. The shooting butts still remain. Archery, within the memory of man, was kept up at Peebles; and an ancient silver prize arrow, with several old medallions appended to it, as I am informed, is still preserved in the town-house of Peebles. And to the last argument, to wit, the authorities of bishops Gibson and Tanner, and the editor of Gavin Douglas's *Virgil*, all of whom attribute the above poem to king James V. All these writers are so modern, and so remote from the age of James I. or even of James V. that they can prove nothing. The oldest of these writers, bishop Gibson, did not publish his book till the year 1691, that is, 149 years after the death of king James V. and 250 years after the death of king James I. Besides Gibson, upon whose bare assertion the other two later writers professedly rely, speaks but dubiously; his words, as on the title-page of the poem, are, "Composed, as it is supposed, by king James V."—Having thus shewn the insufficiency of the arguments and authorities which attribute this poem to king James V. I now proceed to prove that it was undoubtedly the work of king James I.

The most ancient testimony for this opinion is that of Mr. George Bannantyne, to whose taste and industry we owe a manuscript collection of many fine old Scottish poems, prior to the year 1568, which is the date of his manuscript.

In Bannantyne's book, the first poem in point of antiquity is *Christ's Kirk of the Green*, which at the end of it, as was the fashion of the time, bears this signature, "Quod King James I."—Bannantyne's manuscript was finished in 1568, within 26 years of the death of James V. Bannantyne may then be reckoned to have been contemporary with that prince. His testimony, therefore, not only proves negatively that king James V. was not the author, but likewise, that universal tradition and report, in this last prince's time, attributed this poem to his royal ancestor, king James I.—Further, although it may not be easy to ascertain the age of any writing from its language, yet I apprehend there arises strong internal evidence from the poem itself, that it belongs to an age more ancient than that of king James V.

King James I. was carried to England in the year 1404, and remained at the courts of king Henry IV. V. and VI. until the year 1423, when he returned to his own kingdom; some years after which we may conjecture this poem to have been written. If it is compared with any of the poems of the age of king James V. that is a century later, we shall find the language of the first much more antiquated and difficult to be understood than that of the latter.

The poetical genius displayed in this beautiful ancient poem, might alone have been a sufficient incentive to the exertion of its royal author; but the editor, indeed with much appearance of reason, considers the design of it as in great measure political. He observes that the poem is almost one continued ironical satire upon the awkward management of the bow, and the neglect into which archery had then fallen in Scotland. The opinion that the revival of archery may have been at least a secondary object in the composition of the poem, seems to be countenanced by the statutes enacted in the reign of James I. for diffusing among his subjects the knowledge of that military exercise, which had for some ages been cultivated in England with great success.

In the present edition of *Christ's Kirk of the Green*, the editor has followed the manuscript of Bannantyne, made in 1568, and which appears greatly superior to the authorities adopted by bishop Gibson, in his edition of this poem printed at Oxford in 1691.

The poem entitled *The King's Quair* was composed by king James, while a prisoner in England. The subject of it is Jane, daughter to the earl of Somerset, and afterwards the queen of this monarch; a princess celebrated by the Scottish writers for her beauty as well as for her virtues and conjugal affection. This poem, though well known in the time of James, and mentioned by several writers, has lain in obscurity for the last three centuries. The only copy of it preserved has



has been discovered in the Bodleian library at Oxford; from an accurate transcript of which, obtained by the editor, it is now for the first time printed. This poem, according to the reigning taste of the age of James I. and the practice of his contemporaries, Chaucer, Gower, and Lydgate, is written in the form of an allegorical vision, and discovers not only such purity of affection, but such richness of fancy, as does honour to the monarch, both as a lover and a poet.

The following stanzas, extracted from the beginning of this poem, may serve as a specimen.

Heigh in the hevynis figure circular

The rody sterres twynkling as the fyre:

And in Aquary Citherea the clere,

Ryndid hir triffis like the goldin wyre,

That late tofore, in faire and fresche atyre,

Thro' Capricorn heved hir hornis bright,

North northward approchit the myd nyght.

Quhen as I lay in bed allone waking,

New partit out of slepe a lyte tofore.

Fell me to mynd of many diverse thing

Of this and that, can I not say quharefore,

Bot slepe for craft in erth my I no more;

For quhich as tho' coude I no better wyle,

Bot toke a boke to rede upon a quhile:

Of quhich the name is clepit properly

Boece, efter him that was the compiloure,

Schewing counsele of philosophye,

Compilit by that nobil senatoure

Off Rome quhilome y<sup>e</sup> was the warldis floure,

And from estate by fortune a quhile

Foringit was to povert in exile.

And there to here this worthy lord and clerk,

His mexir suete full of moralitee;

His flourit pen so fair he set a werk,

Discriving first of his prosperitee,

And out of that his infelicioitee;

And than how he in his poetly report,

In philosophy can him to comfort.

Tor quhich tho' I in purpose at my boke,

To borowe a slepe at thilk time began,

Or ever I stent my best was more to loke

Upon the writing of this nobil man,

That in himself the full recover wan

Of his infortune, poverti, and distresse,

And in tham set his verray seckernesse.

And

And so the vertew of his zouth before  
 Was in his age the ground of his delytis,  
 Fortune the bak him turnyt, and therefore  
 He makith joye and confort y<sup>e</sup> he quitis  
 Of theire unsekir warldis appetitis,  
 And so aworth he takith his penance,  
 And of his vertew maid it suffisance.  
 With mony a nobil reson as him likit  
 Enditing in his fair latyne tong,  
 So full of fruyte, and rethorikly pykit  
 Quhich to declare my scole is over zong;  
 Therefore I lat him pas, and in my tong  
 Procede I will again to my sentence  
 Of my mater, and leve all incidence.  
 The long ny<sup>e</sup> beholding, as I saide,  
 Myn eyne gan to smert for studying;  
 My boke I schet, and at my hede it laide,  
 And down I lay, bot ony taryng  
 This mater new in my mynd rolling,  
 This is to feyne how y<sup>e</sup> eche estate,  
 As Fortune lykith, thame will translate.

The present edition of these poems is illustrated with notes and explanations, which must greatly facilitate the perusal of them to a modern reader. The editor, whose industry in the present work merits great applause, has also subjoined a Dissertation on the Scottish Music; in respect of which, besides evincing a good taste, and an intimate acquaintance with the most beautiful compositions of that country, he makes several observations that bear strong marks both of ingenuity and critical reflection.—We cannot conclude our account of this production without informing our readers, that the editor positively denies the truth of a report which has long been circulated in the literary world, viz. that the celebrated dramatic pastoral of the Gentle Shepherd was not composed by the poet Allan Ramsay, but by some wits with whom he was connected. The editor therefore has the merit, not only of restoring to James I. the laurels of which that monarch has been unjustly deprived for some ages, but of performing a similar act of justice to the author of another of the most admired productions in the Scottish language.

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*A Criticism on the Elegy written in a Country Church-Yard, Being a Continuation of Dr. J——n's Criticism on the Poems of Gray.* 8vo. 2s. Wilkie.

A Happy imitation of Dr. Johnson's language, as well as of his modes of criticism in the Biographical Prefaces. Perhaps prudence would dictate no more; and the critic might rest contented



contented with the character of careless and superficial, rather than incur the slightest charge against his sagacity and discernment. If the author intended to perplex the world, he has succeeded at least with a Reviewer; for this work would have been noticed more early, if we could have easily separated the ironical from the serious, and the judicious criticism from the sneer of ridicule. We have much reason to suppose that the *whole* is not ironical; and though we think our foundation is sometimes secure, we seem frequently to totter, from its instability.

This criticism is written by a 'master's hand,' and, as we have already observed, entirely in the manner of Dr. Johnson. We need not remind the reader, that the shape of such works is frequently questionable. More than one scholar, though every one is not ready to confess it, at some period of their lives have looked on the emendations of Scriblerus on Virgil as seriously intended to restore erroneous readings! If then the whole purpose of the author be not ironical, we should suppose his chief aim has been, to point out how easily the most admired poetry may be *reasoned* into vague, trifling, and contradictory positions, or to correct the extravagance of panegyric, by pointing out superior passages in other poets, from whom they were probably copied by Gray. Can we easily avoid the last opinion, in the following remarks on the three first stanzas of the poet?

\* If the images above recited are traced to the poets from whom they are taken, we shall not always perceive them to have found their way into the Elegy written in a Country Church-yard, in an *improved* state. Of the curfew, as heard by a man of meditation, we have the following circumstantiation in Milton's *Penferoso*:

' Oft, on a plat of rising ground,  
I hear the *far-off* curfew sound;  
Over some wide-water'd shore  
Swinging slow with sullen roar.

' To this characteristical figuring Gray has thought proper to substitute the conceit of *Dante*; according to which the curfew is made to toll *requiems* to the day newly deceased: a fancy more subtle than solid, and to which the judgment, if reconciled at all, is reconciled by effort.

' Of Evening, the approach is described in the Elegy, as a prose-muser would have described it: "The glimmering landscape fades on the sight;" let us hear Thomson:

" A faint erroneous ray,  
Glanc'd from the imperfect surfaces of things,  
Flings *half an image* on the straining eye;  
While wavering woods and villages and streams

And

And rocks—are all one swimming scene,  
Uncertain if beheld.”  
Or, more compressed in the thought, and invested with the  
sweetness of rhyme:

“But chief, when evening shades decay,  
And the faint landscape swims away,  
Thine is the doubtful soft decline,  
And that best hour of musing thine.”

And Collins:

“Be mine the hut that views  
—Hamlets brown, and dim-discover'd spires,  
And hears their simple bell, and marks, o'er all,  
Thy dewy fingers draw  
The gradual dusky veil.”

The idea of making *sounds* of a certain kind give a *relief* (to  
speak in the language of artists) to *silence*, is not new. Thus  
wrote Collins in 1746:

“Now air is hush'd, save where the weak-ey'd bat,  
With short shrill shriek, flits by on leathern wing;  
Or, where the beetle winds  
His small, but sullen horn.”

The beetle of Collins and Gray is the “grey fly” of Milton,  
that in the pensive man's ear “winds his sultry horn.” Col-  
lins has changed the epithet into *sullen*, by a happy *misremem-  
brance*.

In Parnell, in place of “ivy mantling a tower,” we have  
“yew bathing a charnel-house with dew.” The ivy and the  
tower might stand any where as well as in a church-yard; but  
the charnel-house is characteristic, and the yew is funereal. Of  
Parnell's image, however, candour must acknowledge the strength  
to be so great as to render it almost offensive.

In Gray the introduction of the owl is proper. Parnell's  
ravens might have found another place to croak in than a  
church-yard, and another time than night. But the *part* the  
owl acts in the Elegy is impertinent and foolish, and exhibits  
an example of a writer spoiling a fine image, by *piecing* it. On  
some fine evening Gray had seen the moon shining on a tower,  
such as is here described. An owl might be peeping out from  
the ivy with which it was clad: of the observer, the station  
might be such, that the owl, now emerged from the mantling,  
presented itself to his eye in profile, skirting with the moon's  
limb. All this is well. The perspective is striking; and the  
picture well defined. But the poet was not contented. He  
felt a desire to enlarge it: and, in executing his purpose, gave  
it accumulation without improvement. The idea of the owl's  
*complaining* is an artificial one; and the views on which it pro-  
ceeds absurd. Gray should have seen, that it but ill befitted  
the *bird of wisdom* to complain to the moon of an intrusion,  
which the moon could no more help than herself.

There



There are some others of a similar kind.—That poetry, though really excellent, will not always bear the cool examination of reason, is evinced by many passages of this criticism; but the following is striking and characteristic.

‘ In a series of stanzas that follow, the author sets himself to expostulate with the proud, and undertakes to prove the absurdity of the contempt which he supposes them ready to pour on the “unhonoured dead,” for their want of more superb monuments, from a regular succession of common places.

‘ 1. It was no fault of theirs that they had them not.

‘ 2. They would have stood them in little stead.

‘ 3. Worth and genius may be without them.

‘ 4. It was the injustice of fortune that made them want them.

‘ 5. The account was balanced for them another way.

All which topics are handled with decent plausibility, and at decent length.

‘ X. It is in the tenth stanza that this train of thought commences. But the introduction is not clear of incumbrance. “Impute not to these the fault,” is an affected and inadequate expression for “don’t treat them with scorn.” The two last lines are the most majestic in the whole Elegy. But they contain an appeal to feelings, which none but those who are so happy as to have been bred up in a veneration for the solemn forms and service of the national church, can expect to possess. The palate of a sectary, accustomed to the reception of slender foods, will nauseate the full meal set before him in these lines:

‘ Where thro’ the long-drawn isle, and fretted vault,  
The pealing anthem swells the note of praise.

Of this last line, however, criticism must remark, that either the composition of the thought is faulty, or the arrangement of the expression is inverted. It is not the anthem that swells the note, but the agglomeration of notes that swells the anthem. I am content to suppose this to have been his meaning: communicated in a mode of arrangement, unpleasing to an English reader in his own language, but of which he admits the propriety in Latin compositions. I have seen this line most correctly transferred into that language in many different modes, all of them meritorious, in a collection of exercises written by the boys of the first form in Merchant Taylor’s school, and sent to me with a view, of which I will not gratify my vanity with the publication; though justice requires that of the worthy master I should solace the labours, by recording the unwearied diligence, and by bearing testimony to those abilities that are exerted in forming the rising hopes of another age.

‘ XI. Fault has already been found with Gray for conforming to the affected use of participles in place of adjectives. “Honied spring;” “madding crowd, &c.” “Storied urn;” is of the same family, and even more exceptionable, because liable

liable to misapprehension. The meaning of the epithet is, "having stories figured upon it." In the *Penferoso* of Milton it is to be found as an epithet applied to windows, of which the panes are of painted glass. It is also used by Pope. "Flattery soothing the ear of death," is characteristic. What is said of "honour's voice" is not said happily. There is a want of appropriation. "Silent dust" is one of these expressions, which Voltaire used to denominate *des Suisses*; always ready at a call, and willing to engage in any service.

XII. XIII. In the two following quatrains is well described the depression of genius under ignorance and poverty. But here too allowance must be made for a little of the *old leaven*. Hands are, *metaphorically*, said to "sway the rod of empire," and *literally* to bring forth sounds from the lyre. "Living lyre" is from Cowley; and of his obligation to the royal poet of Judah, for the application of the idea "awake" to the eliciting of sounds from the harp or lyre, he has thought the acknowledgment deserving commemoration. In the whole of the Elegy, criticism has not been able to find two more happy lines than the following:

"Chill penury repress'd their noble rage,  
And froze the genial current of the soul."

Here are really two ideas. Penury, in the character of frost, deprives the current of its heat, and checks its onward motion. I am unwilling to suppose the metaphor to be a broken one; and that Gray jumbled into one, the images of horsemanship, and watery motion, as Addison has done in the following couplet:

"I bridle in my struggling Muse with pain,  
That longs to launch into a nobler strain."

In illustrating our suspicions of the author's intention, we have given a sufficient specimen of his manner, which will probably induce the reader to recur to the work itself. It is executed so well, that even 'the sacredness of the critic's trust,' which 'imposes on him the exertion of self-denial, obliging him to range for blemishes, where his wishes are to find nought but beauties,' has not enabled us to perform more than half our task. We ought however to remark, that, if merely ironical, it is too long; and the greater part of the world may, possibly with justice, look on it in no other light. The real good sense of the following remarks, as well as their very obvious ridicule, has induced us to preserve them.

'Reflections in a Country Church-Yard' was the title by which this piece was first known; a title plain, sober, and expressive of its nature, but too undignified in the apprehension of its author, who persuaded himself to think "Elegy" a nicer name. He should, however, have considered that, in adopting the new title, he subjected himself to severer rules of criticism



ticism than before, and shut himself out from many pleas in defence or palliation of its desultory style, which would have been open to him from its old title of "Reflections;" a title in which little unity being promised, there is little right to expect it. Being completely put together too, before the change of title took place, and suffered, after the change, to remain in a great measure as before, it became charged with incongruities too obvious to escape observation. Though an elegy may be written in a church-yard as well as in a closet, and in a country church-yard even better than in a town one, yet courtesy itself must pronounce it fantastical, if an elegy is to be written, to chuse out a place for writing it, where the conveniencies for that operation are wanting, and even where the common implements either exist not at all, or exist by premeditation. Who is there that says, or would be endured to say, "I will take me pen, ink and paper, and get me out into a church-yard, and there write me an elegy; for *I do well to be melancholy*?" Parnell has carried the matter far enough, when he resolves to get out into a church-yard, and *think* melancholy thoughts.

'If the writers of studied seriousness, and recorders of premeditated griefs, would employ one half of the time spent in preparing their sadnesses for the public eye, in examining into the propriety of introducing them to the public at all, the journals of poetry would be less disgraced than they are with the *balance* of affectation against nature. The seriousness, which embraces the heart, is not the offspring of volition, but of instinct. It is not a purpose, but a frame. The sorrow, that is sorrow indeed, asks for no prompting. It comes without a call. It courts not admiration. It presses not on the general eye, but hastens under covert, and wails its widowhood alone. Its strong hold is the heart. There it remains close curtailed, *unseeing, unseen*. Delicacy and taste recoil at the publications of internal griefs. They profane the hallowedness of secret sadness, and suppose selected and decorated expression compatible with the prostration of the soul.'

The passages which were more certainly intended to be serious are, an elegant translation of one of Petrarch's sonnets, and, in our opinion, the Rondeau, though introduced in a ludicrous manner. The author supposes it to be contained in a letter of Gray to Dr. Curson, which consists of a lively explanation of the nature of this kind of composition. It is well known that the subject, in a rondeau, recurs at the end of every stanza; the music is continued, and the voice slides imperceptibly into the 'return.' Our author is not contented with trusting this part to the powers of the finger, but contrives, that the final word of the verse shall be the first that occurs in the burthen; so that the difficulty to be overcome is, to finish it with a word that will not materially alter the

sense

sense of the return, though it be substituted instead of that with which it originally commenced. We shall not consider this subject at length, because we apprehend the improvement is very trifling. It has been usual to adapt the words of a rondeau to this principle, by making the final and returning ones of easy pronunciation; and, by properly choosing mutes and liquids, to render the passage of the voice probably more easy, than by repeating the same word. But, after all, our ironical author may smile at a grave observation, on what may have been intended for ridicule. Poets, like the Gunner in the Critic, frequently think that they can never have enough of a good thing, and sometimes render the most striking beauties ridiculous, by an overstrained application. We can only add, that the accident by which this criticism was introduced to the press, is related by the author in the usual manner, and with great humour.

## FOREIGN ARTICLE.

*Winkelmann's Histoire de l'Art de l'Antiquité. (Continued, from p. 143.)*

**A**FTER our author has considered every circumstance which relates to what he calls the essence of art, he proceeds to examine its progress. This may be more strictly called a history, as, in this part only, the influence of different circumstances and different states of society on the progress of arts are considered and detailed. The Abbé finds that the great hinge, on which their well-being depends, is liberty; for, though they are promoted by other fortuitous events, this is the leading principle which animates and supports them. But in this opinion he seems to be led by system to a partial and narrow view. The great spur to emulation, as we have already remarked, is the general attention of mankind; and, when art is connected with religion, it has a superior claim to respect, and even commands veneration. In every period, and in every country, religion, or its shadow, superstition, have prevailed; and in the different æras both of Greece and Rome, has contributed to promote the progress of art; but a general attention to works of taste and elegance cannot be expected during a civil war or a destructive pestilence. It is not therefore liberty alone which has the effect attributed to it by our author; it is a fixed, established, and flourishing government of any kind: it is a state of peace and harmony. The Peloponesian war, the effects of the rivalry between Athens and Sparta, is no objection to this opinion; the war was at a distance from the capital of either state: it was a rivalry in arts as well as arms, and carried on with so little animosity, that the enemies met, both at the Isthmian



mian and Olympic games, in harmony; or at least prepared to carry on only the image of war, and to be ready for renewed and real contests.

The history of art, before the time of Phidias, is scarcely more than a chronicle of names; and the different schools of Sicyon, Corinth, and Egina, are scarcely distinguished but in their appellations. It was after the destruction of the tyrants of Greece, and the victories obtained over Xerxes, that the arts flourished in this country, and that Phidias astonished the world by his representation of Jupiter. The only remains of that æra now at Rome is the great Muse, in the palace Barberini: this statue, like all the early productions of Greece, displays a dignity and majesty which is seldom observed in the more finished works of more enlightened ages. In the whole period from Phidias to Alexander, the works of the artists, without losing their dignity, were executed with a purity and simplicity which will always attract the admirers of nature. 'Refinement is as prejudicial to the cultivation of art, as to the education of man.'

We cannot enter into a detail of the merits of Phidias, his cotemporaries and pupils; but we ought to mention a curious circumstance, which is at once a flattering compliment to the artists, and an incitement to those who are capable of improving their several professions. This was the period, during which the present workmen were esteemed more than their predecessors; but, as if art had been brought to perfection, from this time the opinion of mankind was different.

When the war approached the seat of government, and Athens submitted to the arms of Lyfander, art declined with the prosperity of the state, and seemed almost to expire with its distinguished citizens; but it recovered when its tyrants were destroyed, and shone again with renewed lustre, under the auspices of Canachus and his cotemporaries, when Conon had completed by sea, what Thrasybulus had so successfully begun. It is obvious that the destruction of liberty had not so much effect on this revolution, as the temporary humiliation, and the distresses of the Athenians. The subsequent wars, as they did not approach so near to the capital, had less effect on the arts; and, even during the last war with Thebes, when Epaminondas finished his own life with a most glorious victory in the 104th Olympiad, the impediments to their progress seem rather imaginary than real. At this time, the sun of Greece was setting; but it sat with a glory that had not distinguished even its meridian splendour. This was the age of Xenophon and Plato, of Menander, of Praxiteles; and of Pamphilis, the master of Apelles, Euphranor, Zeuxis, Nicias, and Parrhasius.

It is a decisive stroke against the system of Mr. Winkelmann, that the arts flourished, with unimpaired vigour, under the despotism of Alexander. The liberality and the taste of this

prince had undoubtedly their share; but they would have had a different effect, if the blast of tyranny had been so destructive as our author supposed. The name of Lyfippus is well known, and he seems to have brought artists back to a study of nature, which they had neglected by aiming at the ideal and sublime beauties. Agesander, Athenoderus, and Polydorus, were the authors of the famous Laocoon, which demands the attention and admiration of posterity, since it has produced nothing comparable to it. Pyrgoteles was an engraver on precious stones, of that age; Apelles, Aristides, Protogenes, and Nichomachus, celebrated painters. The observations on the figures of Alexander and Demosthenes are so interesting, that we wish we could insert them entire. We must however remark, that the figure of the orator, published by Fulvius Ursinus, certainly represents some other person. The present work presents us with a representation of one of his real busts.

On the death of Alexander art seemed to languish at Athens, from their peculiar situation rather than from their new government; and the words of Pliny, that art from this time languished and *ceased*, about the 135th Olympiad, our author contends must be applied only to this state. It is not our business to recount their unsuccessful attempts to escape from despotism, nor the mean flattery which they lavishly bestowed on their numerous and short-lived governors. These are sufficiently understood, and show that anarchy and confusion, rather than loss of liberty, contributed to weaken the efforts of ingenuity. Yet every petty tyrant had his statues and medals, in which the value of the metal often made amends for the workmanship; but even these attempts, for a time, kept alive an art which they were not able to improve. A medal remaining of Antiochus is still one of the most beautiful relics of ancient Greece; and the famous Farnesian bull is probably of this age. Of the numerous medals and statues said to represent Pyrrhus, our author excepts to those which have the beard thick and long.

The arts of Greece, banished from their native climate, revived with lustre in Egypt under the Ptolemies; and in Asia, under the Seleucidae: transplanted to a new soil, they set forward with new strength.

We must not confound these remains with what we have already observed of Egyptian arts. The scene only was changed, the artists were the same; the materials were different, but the style remained. The power, and the riches of Ptolemy Philadelphus, and his predecessor Ptolemy Soter, are well known; and it is rather our object to remark, that, after the dispersion of the Grecian artists, Apelles was drawn to Egypt by the liberality and splendour of the Egyptian successor of Alexander, and almost the rival of his greatness. Under the reign of the second Grecian king in Egypt, Euclid taught geometry, Theocritus wrote his Pastorals, and Callimachus his Hymns. But of all the Egyptian artists the name of Satyrus only has reached the present



present age. The works in porphyry and basalt are probably of this period; and the Alexandrian coins are still valued for the elegance of the workmanship. The poets, except perhaps Theocritus, did not equally support their former reputation. The arts, when transplanted to Asia, did not flourish with the same luxuriance. Our author judiciously leaves his system to tell us, that this was owing to the distance from Greece, and to the faint recollection of what the artists had once seen, when a considerable interval had elapsed. It is one of the means of establishing a just taste, to review with care the most approved works; but this was sufficiently considered in our first article.

The period was not yet arrived, when the arts of Greece were to sink without recovery. The Achæan league was formed in the 125th Olympiad, and by the security and tranquillity which it established, restored in some degree the admiration of, and the value for, the more elegant works. The war between the Etolians and Achæans was carried on with a barbarous animosity, which for a time repressed what the league had a tendency to cherish. Every thing elegant and valuable was sacrificed to this rage of rivalry, during the temporary supremacy, which the chances of war gave to either party; and the existence even of art would have been forgotten, if the latent germ had not been cherished by the Grecians who had emigrated to Sicily, to Bithynia, and to Pergamus. The names of Hiero of Sicily, and Attalus of Pergamus, will recall to the reader's recollection the splendour of their courts, and the luxuries of their palaces. To this period, and particularly to Pergamus, our author attributes the different impositions of statuaries, who add the names of eminent masters to the copies of their works. This emulation, while it hindered the farther advances of art, contributed to prevent its decay; and it was of some consequence not to recede, if it was impossible, as the enthusiasm of a true antiquary will assure us, to go on. The return of public tranquillity in Greece, by the interposition of the Romans, and the various events related in different histories, dissipated the embers by which the spark had been hitherto concealed, and animated it with fresh vigour. This event happened the 4th year of the 144th Olympiad. To this æra our author attributed the famous relic styled the Torso of Belvidere. It is the trunk of a statue, without head, arms, or legs. 'The artist,' says our author, 'offers us, in this work, the sublime ideal of a body raised above human nature; of a constitution, arrived at the entire evolution of mature age; of a nature, exalted even to a degree which characterises divine content. Hercules appears here at the moment in which he is purified by fire from the grossness of humanity; at the instant in which he has obtained immortality, and is placed among the gods. He is represented without the necessity of tasting nourishment, without being again obliged to employ the force of his arms. You

seem veins; his body is made to enjoy, not to nourish itself. His belly is full without being distended. By his attitude, he seems sitting with his right arm under his head, in a state of rest after his labours. — What piercing eyes has an antiquary! All this is understood by the trunk alone; but every science has its weaknesses, and we must be silent. The other statues of Hercules our author describes with enthusiasm and eloquence. We eagerly wish to transcribe them; but in that case our article must remain another, though less valuable, Torso, without hands and feet. — The statuary of this age were Glycon and Apollonius.

[To be continued.]

## MONTHLY CATALOGUE.

### POLITICAL.

*An Argument to prove, that it is the indispensable Duty of the Creditors of the Public to insist, that Government do forthwith bring forward the Consideration of the State of the Nation, &c. By John Earl of Stair. 8vo. 1s. 6d. Stockdale.*

THE real, the freedom, and the energy, with which the Earl of Stair has repeatedly addressed the public on the state of the nation, are universally acknowledged. His lordship, we are sorry to observe, perseveres with unabated vehemence in urging the impossibility that the national revenues, or even resources, can continue much longer to preserve the government from bankruptcy. Admitting however the real danger of such an event, which we hope is at least at a greater distance than the noble lord seems to imagine, it is to be wished that so able and so diligent an enquirer into matters of finance would apply his talents towards restoring the prosperity of the nation, rather than overwhelm her with despondency by incessant predictions of inevitable and imminent ruin. The right honourable author's argument concludes in a strain remarkably emphatical.

‘I am tired (says his lordship) with thinking—wearied of conjectures, which, as they do not satisfy myself, cannot, I apprehend, satisfy the public; nor can I say what, or if any other aid than what she now affords, can be given by government’s great ally the dubious source (as politicians hold) of good or ill; liable, perhaps, alike to use and to abuse; too much, alas! the fate of all human institutions.

‘A peace is a proper epoch. Let the public creditors meet. In the multitude of counsellors safety resides. Interest is clarified. They may, perhaps, discover that things are not as I represent them; or if they are, they may find issues from this labyrinth of distress unknown to me. My poor assistance, or any further information I can give, are heartily at their service. Let them



them depend upon themselves, not upon ministers. Investigations of this kind are ever odious to ministers; and our present great men, who tread the rounds of power in Lydian measure, may think the public ought to be satisfied, if they declare (as the generality of them safely may) that they pay the same attention to the interests of the creditors of the public, as they do to those of their own creditors.

During the course of this performance, I have spoke of measures and of men in the very manner they appeared to me, without fear or favour; and I am sure without malice to any man, or connection of men whatever. I have spoke of men, because from men measures must flow. Was it not for this, I could have wished to have omitted this part of my subject: for however guarded I have been in only censuring bodies and connections of men, leagued and arrayed to oppose or promote public measures, yet I apprehend, without making any friends, I create enemies to myself thereby.

There is no wisdom in braving the private enmities of public men, and the disagreeable consequences of them even to the most independent, where there are no hopes of public utility. My hopes of being of use, from past experience, are not, cannot be very sanguine; and on this ground I think I may be excused from standing forth any more in the public service, and may without reproach wait with as much indifference as others, more immediately concerned than I am, do for the fatal catastrophe, which seems to be approaching fast, without any body's caring or thinking about it. Even with those that are the most anxious, the idlest delusions of hope and speculation serve to overthrow the most irrefragable demonstrations of figures, which last pass for no more than the crude dreams of gloomy visionaries.

If, in treating of matters so alarming, I have now and then let slip any thing too light and flippant, I humbly ask pardon of the public. It proceeds from a temper and disposition of mind naturally cheerful, that wishes to beguile and make palatable to my readers, and to myself, the dry intricacies of figures. I am, notwithstanding, not the less in earnest; nor was I ever more in earnest in my life than when I declare, that if the premises that the conviction of the truth of them has compelled me to adopt are just, or nearly just, and nothing effectual is done to prevent their consequences, the infallible, inevitable conclusion that follows, is—

“That the state is a bankrupt; and that those who have trusted their all to the public faith, are in very imminent danger of becoming (I die pronouncing it) beggars.”

In the present publication, the noble lord, with a frankness becoming a loyal and affectionate subject, declares, that should his majesty be pleased to order a detailed state of the civil list revenues to be laid before him, he will separate the expence of his majesty and his family from the expences charged

on the civil list, and publish an abstract of it as an appendix to this work. We are under no difficulty of agreeing with his lordship in opinion, that such a measure would be of service both to the king and to his people, by satisfying the latter that the profusions imputed to the crown are in a great measure not founded in fact and justice. By this means the earl of Stair perhaps might also be enabled to form, without prognostication, some important conclusions respecting the arcana of government.

*Serious Considerations on the Political Conduct of Lord North, since his first Entry into the Ministry.* By Nath. Buckingham, Esq. 8vo. 2s. Stockdale.

The author of this pamphlet inveighs against lord North with an acrimony which evidently betrays prejudice. The first article of the charge exhibited by Mr. Buckingham is, that when money was wanted for the public service, his lordship always had recourse to the practice of funding. This practice, no doubt, may justly be considered as pernicious in several respects. But lord North could not be particularly reprehensible for having recourse to an expedient which has been uniformly adopted by every administration for almost a century past; especially if, for raising the national supplies, no other method sufficiently practicable, and less disadvantageous, could be carried into execution.

Another charge produced against the minister by the author of the present pamphlet, is the choice of improper officers for military and naval commands. That, in some instances, the choice was unfortunate, is a fact that cannot be denied; but admitting that the mistake had even been voluntary, which we presume Mr. Buckingham himself will not be so unreasonable as to affirm, it would be unjust to impute the blame entirely to any one member of the cabinet. The author is likewise sarcastic against some other persons in public life, respecting the supposed demerits of whom he is far from being singular in opinion.

*Two Letters on Parliamentary Representation.* By Jeremiah Bat-  
ley, Esq. 8vo. 1s. 6d. Debrett.

The author of these Letters is a zealous, though we think an unprejudiced, advocate for parliamentary reformation. He professes a high opinion of the abilities and patriotic intentions of some of those who have been most forward in their endeavours to promote such a plan; but he expresses at the same time a disapprobation of the means which they have proposed for that purpose.

A general idea of his sentiments respecting the different methods of reform, is conveyed in the following extract:

"There are two modes of reform particularly contended for; and each is supported by individuals, very deservedly respected: I need not say, that I allude to the Yorkshire plan, and that of universal representation. The latter, most likely, will  
only



only serve as a record both of the virtues and imperfections of the human mind, for it required the greatest benevolence and mental fortitude to conceive it to be practicable; and, considering the circumstances of the country, an indifference, that is nearly allied to insensibility, in those for whose relief it is proposed, not to endeavour to make it so. But the other, very different in its end and principle, is so artfully contrived to attract powerful patronage, that, contrary to the sentiments of many, I have always feared that it was likely to be carried into execution. Should it so happen, I sincerely wish that our descendants may never have cause to complain of that event; but I cannot with equal truth add, that this is my expectation.

Of the various schemes that have been proposed for the melioration of parliament, the most easy to execute, that will answer, in my opinion, the intention of the constitution to give universal protection, is either that which recommends an improvement of our present borough-representation, by adding to the voters the householders of the town and of the neighbouring hamlets; or that of the Westminster Committee of Association, of dividing the kingdom into equal districts. The first is the most simple: the last, were householders only permitted to vote, is more perfect, but will be far more difficult, I should suppose, to obtain; and as either, I think, would answer our purpose, the most practicable seems to be the best entitled to a preference. I may, perhaps, be too partial in ascribing to the proposal I formerly recommended, so much perfection; but certainly, if boroughs can be made to answer the purpose of representation, we should obviate many objections to a reform by retaining them. Some must undoubtedly be amputated, because they are so unequally dispersed; but we may create others in their stead, and let all those remain that can be corrected.

This author considers a *diversified representation* as the best security of public freedom; and intimates an apprehension lest, if the plan for adding a greater number of members to the counties should be adopted, the landed interest might acquire too powerful an influence in the legislature.

This remark coincides with an opinion which we expressed in a late Review; but we cannot likewise acknowledge a similitude of sentiment on the subject of annual elections; a measure transiently recommended, but in strong terms, by this sensible writer.

*A Defence of the Conduct of the Court of Portugal; with a full Refutation of the several Charges alleged against that Kingdom, with Respect to Ireland.* 8vo. 1s. 6d. Stockdale.

It appears from this pamphlet that the Irish have expressed complaints against the court of Portugal, for not admitting them to trade in her ports with the same freedom as the subjects of Great Britain. In answer to those complaints the court of Portugal, or some person interested in the measures of that nation, assures the Irish that this conduct arises from no partiality,

tiality, but merely from a necessary adherence to the terms of the commercial treaty made with Great Britain in 1703, in which the inhabitants of Ireland were not mentioned. It is added, that the court of Portugal has actually made application to the British ministry for a renewal of the treaty, in which it is their intention that the Irish shall be included.

*A Letter to the Earl of Effingham on his lately proposed Act of Insolvency.* By James Bland Burges, Esq. 8vo. 2s. Cadell.

It seems that Mr. Burges, the writer of this Letter, had been desired by Lord Effingham to prepare the insolvent act, which his Lordship moved for, towards the close of the last session of parliament. Mr. Burges had formerly disapproved of acts of that nature; but on attentively considering the subject, for the purpose above mentioned, he entirely changed his opinion; and he now endeavours to evince, by a variety of arguments, the expediency of passing such an act. He begins with refuting some objections which have been made to the tendency of insolvent acts in general, viz. that such acts are improper, because they give encouragement to fraudulent debtors; that they bear exceedingly hard upon creditors; that they have been productive of great evils; that they are founded upon narrow principles; that the act proposed last session differed from the insolvent act of 1781, and was contrary to the principle of both houses. After answering these several objections, Mr. Burges proceeds to give a general detail of the insolvent and other acts relative to prisoners for debt, which have passed in England since the beginning of the last century.

As the author directs his observations to the understanding, not the passions of his readers, he is more argumentative than declamatory; and has, in support of the measure he recommends, given only the two following facts, which humanity will not permit us to leave unmentioned.

‘Not many months ago a poor wretch, who had been confined in the King’s Bench for fifteen years, literally died of hunger; he was found in a sequestered corner of the prison starved to death. One Grace Hooper is still a prisoner in the county gaol of Devonshire, where she has been immured for one-and-forty years, for a debt of fifteen pounds, and a subsequent detainer on a writ *de excommunicato capiendo*, lodged against her in consequence of a suit in the ecclesiastical court, with the rector of her parish, about a pew in the church.’

Upon the whole, the author urges very forcible considerations for the interposition of the legislature, in granting to imprisoned debtors that relief which he insists is strongly required, not only by humanity, but the principles of justice and wise government.

*A Brief and Impartial Review of the State of Great Britain, &c.* 8vo. 1s. 6d. Kearsley.

We cannot avoid remarking an error committed in the title-page of this pamphlet, where we find mention made of the  
‘fourth



'Fourth session of the fifteenth parliament of the present reign.' — In respect of this author's Review we meet with nothing that merits particular attention. The principal drift of his observations seems to be, to pave the way for the assumption of the East India territories into the hands of administration. His politics appear to be not untainted with personal prejudices; unless indeed we mistake for prejudice a desire of gratifying those who at present conduct the affairs of government.

*By Order of Congress. Addresses and Recommendations to the States, By the United States in Congress assembled. 8vo. 2s. Stockdale.*

In these papers, which are written with great energy, the Congress urges the obligation of the United States to render justice to the public creditors; and at the same time points out the resources from which a revenue for that purpose may be obtained. The propriety of the expedients recommended by the Congress is also enforced by a variety of documents.

*A Circular Letter from General Washington to William Greene, Esq. Governor of the State of Rhode Island. 8vo. 6d. Stockdale.*

This Letter has already appeared in the public prints. The author's design is to rouse and confirm a spirit of patriotism and unanimity in the American States. As a cautious, defensive general, Mr. Washington's military talents have formerly been experienced; and, on the present occasion, we must acknowledge he appears to advantage in the capacity of a writer.

*Minutes of the Evidence at the Bar of the House of Commons, Proceedings of the House, and bearing of Council, on reading the Bill for inflicting Pains and Penalties on Sir Thomas Rumbold, Bart. and Peter Perring, Esq. Folio. 1l. 11s. 6d. Walker.*

As this enquiry is not yet concluded, any observations upon it would be reprehensible.

#### D I V I N I T Y.

*Eight Sermons preached before the University of Oxford, in the Year 1783, at the Lecture founded by the Rev. John Bampton, A. M. By John Cobb, D. D. 8vo. 3s. 6d. sewed. Rivington.*

Woolaston, in his Religion of Nature delineated, proposes this question:—How may a man qualify himself, so as to be able to judge for himself, of the other religions professed in the world, to settle his own opinions in disputable matters, and then to enjoy tranquillity of mind, neither disturbing others, nor being disturbed at what passes among them? Dr. Cobb keeps this question in view, and makes the subject of his first discourse an Inquiry after Happiness. Tranquillity in life, he says, is not to be maintained without prudence; nor without the persuasion of the being and providence of God, nor without religion. Rational happiness is not to be found in riches, honour, pleasure, or in contemplation. It is only to be found in consciousness; yet not complete without the hope of immortality.

He proceeds to examine the pretensions of natural religion. 'Rational systematical religion, he observes, is incompetent to the purposes of the inquiry. Philosophy or rational systems being abstruse and speculative, and also uncertain and various, prudence is the only rational religion, truly so called. This is competent, as such, in itself to a moral agent. But man is a transgressor; and this religion is not adapted to such a character.'

The next object of enquiry is the Gospel. This, he shews, is an act of grace, and the religion of sinners. 'The Christian religion, he remarks, was not delivered in a system; it does not add to the law of reason, nor supersede the rational law. Yet it is not justly defined as the restoration of natural religion. The argument of its internal evidence is limited in its application. Christ is the author of new methods of sanctification.'

The author then treats of repentance, of faith professional and practical, and of the Christian privileges; which, according to his account, are free inquiry, wisdom, prudence, settled judgment, and peace.

On these topics he reasons in a cool, sedate, and scientific manner, as a learned and orthodox divine.

*Vicarious Sacrifice; or the Reality and Importance of Atonement for Sin by the Death of Christ, asserted and defended, against the Objections of Dr. Priestley. By R. Elliot, A. B. 8vo. 2s. 6d. Johnson.*

This writer is a strenuous advocate for the doctrines of vicarious sacrifice, imputed righteousness, and atonement for sin by the death of Christ. He undertakes to answer thirty-three objections, which have been urged against these tenets by some late writers, particularly Dr. Priestley. His manner of treating the subject is calm and methodical. He states his arguments with great perspicuity; and, though he generally contends against the principles of human reason, he appears to be actuated by a zeal only for truth, and the good of mankind.

*The Explication of the Vision of Ezekiel; which tends to unfold all Prophecy, and several other Parts of Scripture, which are not in general understood. 8vo. 1s. Rivington.*

*A Continuation from the First Book, by the Author of the Explanation of the Vision of Ezekiel: including Solomon's Song. 8vo. 2s. 6d. Rivington.*

*The Invisible Geography of the World, or an Explanation of the Bible, continued by the Explainer of the Vision of Ezekiel. Book III. 8vo. 2s. 6d. Rivington.*

As the intentions of this writer are pious, his faculties evidently disordered, and his lucubrations absolutely unintelligible, these three pamphlets must be exempted from criticism.

*The Beauties of Methodism. Selected from the Works of the Rev. John Wesley, A. M. 12mo. 2s. 6d. sewed. Fielding.*

The Τὸ Καλὸν of Methodism is here displayed with zeal and ostentation, if not with colours suitable to the native beauty ascribed



cribed to its doctrines by this writer. The compilation, however, we doubt not, will prove acceptable to the frequenters of the Foundery, and may likewise gratify the curiosity of such as desire to know the principles of this sect.

### D R A M A T I C.

*Fatal Curiosity: a True Tragedy.* Written by George Lillo, 1736. With Alterations, as revived at the Theatre-Royal, Haymarket. 8vo. 1s. 6d. Cadell.

This scene of real distress is one of those domestic tragedies, which, as they require greater art in the poet, at least in the opinion of Horace, so they are more interesting and affecting. The practice of Lillo has constantly been, to trust to the real effect of domestic woe, with little poetical ornament, and less artificial management. His genius may not have been adapted to either, or he might have thought that they were unnecessary, when the heart must have been sufficiently affected by a plain 'unvarnished tale.' He is certainly supported by the practice of Shakspeare, who, though he was able, from trifles light as air, to raise an apparent confirmation strong as holy writ; yet in scenes of real woe is scarcely superior in art or ornament to the author of the *Fatal Curiosity*. It will immediately occur, that we allude to a disputed play, the *Yorkshire Tragedy*; but there is sufficient reason to conclude, that it was really the production of Shakspeare. We mean not to infer that Lillo was destitute of a poetical genius, or ignorant of the best methods of conducting his fables; though the former seldom soared to the sublimer flights; and in the latter, he commonly followed, and sometimes servilely, the history. In general his plays are the favourites of feeling hearts, and of those who do not disdain to be affected, because their judgment or their taste is not completely satisfied.

Mr. Colman has again introduced this play to the attention of the public, with very slight alterations. We must suppose the story to be generally known; the postscript only has the claim of novelty. It contains the original story, from a book commonly styled Frankland's Annals, and some remarks on Mr. Harris's Commentary on this play, in his *Philological Enquiries*. The latter are not very interesting, as they are chiefly intended to correct some mistakes, which Mr. Harris had fallen into by writing of this play from memory only. The former varies little from it, except that, in the Tragedy, the part of the Sister is more interesting, from her office being given to a lady, whom the young man had formerly loved; and who, notwithstanding absence and the report of his death, continued faithful to his memory.

The frequenters of the theatre were certainly obliged to Mr. Colman for rescuing this pathetic narrative from oblivion; and we ought not to forget our thanks, since to recall the recollection, is frequently to renew the pleasure.

The

*The Magic Picture, a Play.* [Altered from Massinger.] By the  
Rev. H. Bate. 8vo. 1s. 6d. T. Davies.

In altering 'The Picture' of Massinger, Mr. Bate has given freer scope, both to his judgment and invention, than is usual in such transmutations. He has not only reformed the dialogue from those gross indelicacies with which it had been stained by its original author, but rendered the whole fable more consistent with dramatic probability, by substituting Jealousy, instead of Magic, as the principal agent in the piece. In several other circumstances, likewise, of sentiment and character, the Picture has received such improvement as justifies the applause bestowed upon it at the theatre.

### M E D I C A L.

*A Letter to Mr. Clare, upon the Prevention and Cure of the Syphilis, Gonorrhoea, Fluor Albus, &c. by Absorption.* By S. Freeman, M.D. Author of the Ladies Medical Friend, Good Samaritan, and Practical Midwifery. 4to. 1s. Cornwell.

It is impossible to read a newspaper without having some acquaintance with Mr. Clare; but we know little of the author of the Good Samaritan, &c. We are, however, certain, that he sometimes 'follows truth', who really appears the goddess of his idolatry, for he has not even sent 'one copy of this poor production (truth again!—Would that every author was so much attached to it!) to the Reviewers, nor even one single guinea to puff for him.' We must give our melancholy testimony to this assertion, and sigh in silence.

But who is Dr. Freeman?—Do not be so impatient, reader, and we will inform you. He is a man of credit and character, who has a great number of the genteelst patients, and does much good. Hear his own words: 'I thank God there never was one single patient of mine ever killed, or their constitution the least injured by being cured in the manner proposed.' It is lucky that nonsense is neither true nor false. Mr. Clare, we are informed by the same authority, is a young man of great merit, to whom the 'whole world' is indebted for this valuable discovery. Indeed we did not think the disease, though general, had been universal. The author informs him that, though he is so ingenious, it is possible that he may not be regarded, yet that this has been the lot of many ingenious men besides himself. We are happy to find that Dr. Freeman has been more successful.

It is impossible to find room in our article for the many good things in this Letter; as the virtue of fasting spittle for dropsies, scorvy, rheumatism, &c. or that a stone may be evacuated by masticated biscuit being applied to the eyes. It is a little unfortunate for this remedy, that fasting spittle must necessarily be swallowed every day, by every individual; but it is probable

that



that the Doctor imputes every death, as unfortunately there is a time when patients can no longer swallow, to this defect.

We may resume our acquaintance with Dr. Freeman from Mr. Clare's answer;—for he surely will not omit any occasion so favourable, who has adopted many, whose appearance was less flattering.

### MISCELLANEOUS.

*A Dissertation on the Preservative from Drowning; and Swimmer's Assistant.* By R. Macpherson, Gent. 8vo. 2s. 6d. Murray.

The object of this Dissertation is to recommend a peculiar apparatus, as a preservative. The author is consequently induced to examine every machine of this kind, which has been hitherto recommended, and finds each of them unweildy, inconvenient and sometimes insufficient. His chief intention is to preserve the life of the seaman till some ship may happen to meet with him; or, if near the shore, till assistance from thence, or his own efforts, enable him to reach it. To enforce this plan, he has collected many histories of people who have been preserved by means of pieces of the wrecks, and has augmented the number, we think unnecessarily, by an account of almost every shipwreck or inundation he has been able to procure. We have examined his description of the preservative with the annexed plate, together with the principles on which it is recommended, and have little hesitation in pronouncing it equally simple, convenient, and safe. Yet it may never be much employed, and, like many other inventions, will be admired and neglected. It is probable that the very circumstance which may seem to make it generally necessary, will contribute to this neglect; the dangers which continually surround us we despise; and the inhabitants of a gunpowder mill think themselves secure, while the smallest spark would be their inevitable destruction. The guide, who conducts the traveller to the summit of *Ætna*, disregards an eruption; and the inhabitant below would despise a preservative, unless presented in the garb of religion, or the form of an amulet. We need not multiply instances of this nature; the conduct of every individual will recall our position to 'his own business and bosom.'

The experiments of our author differ a little, however, from our own. The water will certainly support us, though we have not found it easier to rest on our back, than in the opposite position. The hands are less exercised, but the neck is soon weary. When we trusted ourselves to the water without any effort, the constant consequence has been, that the face has turned downwards, and the head has sunk rather below the surface. This may seem to contradict the former opinion, that the supine position required less exertion of the hands; but it will be soon obvious, that, in this case, they are employed to greater advantage.

These

These hints may probably deserve the attention of our author, in adapting his principles to different persons, as different sizes and bulks must vary the events of these experiments.

*Thoughts submitted to the Consideration of the Officers of the Army, respecting the Establishment of a Regimental Fund, for the Relief of the sick and necessitous Wives of the private Soldier.* By R. Hamilton, M. D. 8vo. 1s. Johnson.

This benevolent tract relates to the wives of the private soldiers, whose distress is considerable, and alleviated only by the cold, and often precarious, hand of casual charity. Our author proposes to raise a yearly fund for their more certain relief, from the vices of the common soldiers, and the subscription of the officers. The industrious workman, who is permitted to follow his labour, is also to contribute a penny per day from his small stipend. These taxes are trifling, and the utility material and certain; for the wives of the privates are important objects even to government, since the best soldiers are always those who have been bred in the army. The humanity of the author's intention, and the justice of his 'ways and means,' deserve our applause.

*Maxims and Reflections.* Small 8vo. 1s. Egerton.

A short but sensible preface served to conciliate our affections to this little piece: many of the Reflections are certainly shrewd and sagacious; more of them are trite, and we fear that some may be styled trifling; yet they afford an agreeable amusement as well as some instruction, for an idle half hour; and, if they had been arranged in a proper order, their merit would have been more conspicuous.

*Joseph. In Five Books.* By A. M. Cox. Small 8vo. 3s. Doddsley.

The favourable reception which this lady's first production, *Burton Wood*, met with from the public, has, she says, induced her to try the success of a second performance. The history of *Joseph* has been universally admired for its pathos and unaffected simplicity. Our author begins her narrative with the lamentation of Jacob for the loss of his son, and the return of Reuben and his brethren to the land of Canaan, after their first expedition into Egypt. She has embellished the story with some additional circumstances, as the love of Benjamin and Zaphna, the introduction of Asenath the wife of Joseph, &c. But, in general, she has adhered to the Mosaic history. The style, in which this work is composed, is a sort of measured prose. The following paragraph will be no improper specimen.

"At last he rose;—and, speaking to the many present, "Depart (he said), I have farther business with these Hebrews."—Obedient, all retired; when, ardent gazing through the medium of those tears impelled by powerful affection, he



struck their souls with this all-startling,—this awful declaration,——

“ I AM YOUR BROTHER JOSEPH ! ”

—Had sonorous thunder, in terrific peals, burst with tremendous horror o'er their heads, and shaken the earth even to the lowest centre;—had Egypt's lofty towers in ponderous ruin fallen, all shattered by the dire explosion,—they might have felt the shock: but *this*,—*this* sudden stroke, no fortitude could parry:—A gleam of joy, checked by the strongest apprehension,—dread surprise,—hope, combating with fear,—conjunctive all,—shot swiftly through their bosoms.—The youth, whose artless plaints in vain implored their mercy, whose tender years moved not their savage hearts,—whom (deaf to every soft fraternal claim, and thoughtless of a parent's deep distress,) they ruthless sold to strangers;—this youth now stood before them,—graceful,—majestic.—The bloom of early years was lost in ripened manhood;—his form athletic,—not inelegant,—covered with the richest robes of state, second to none but Egypt's glorious king,—beloved,—respected,—honoured!—Great God!—Imagination's force creative cannot form ideas adequate to such a scene!

This language has nothing of that simplicity for which the original is distinguished. It resembles Joseph's coat of many colours.

*Theses, Græcæ et Latine, selectæ.* 12mo. 4s. Law.

A number of publications has lately appeared, containing the beauties of modern authors. It was therefore natural to imagine, that some person of learning would present the public with the beauties of the classic writers, which are undoubtedly sufficient to make a very copious, and a very agreeable collection. Mr. William Baker, printer in Ingram Court, Fenchurch-street, is the compiler of this volume. It is chiefly composed of short sentimental observations, thrown together promiscuously. The want of a methodical arrangement, or an index, may in some respects lessen its utility; but it will nevertheless afford the classical reader a great variety of rational amusement. Mr. Baker has made his extracts from both the Greek and Latin writers, and has displayed no inconsiderable taste and judgment in the selection.

*The Magdalen: or, History of the first Penitent received into that charitable Asylum.* 12mo. 2s. 6d. sewed. Lane.

This narrative is said to contain the history of the first penitent received into the asylum known by the name of the Magdalen; with anecdotes of other penitents. It is written in a series of letters, which are ascribed, with what truth the editor best knows, to the late unfortunate Dr. Dodd. Whoever the author be, the story is not ill related, and may afford female readers such instruction as is favourable to the cultivation of virtue, by shewing the pernicious consequences of vice.

*Fruit*

*Fruit Tables.* 2s. Stockdale.

These Tables exhibit in columns a description of the size, colour, shape, flesh, juice, and other distinguishing characteristics, as well as the various times of ripening, of the most esteemed species of peaches, nectarines, plums, and pears. Subjoined is a catalogue of the different sorts of esculent and herbaceous plants that are raised for the use of the kitchen, with the most common varieties, and a specification of the parts which are eaten. The Tables appear to be compiled with care; and the information contained in the catalogue may also prove not unuseful to private families.

*Fables in Monosyllables,* by Mrs. Teachwell, 12mo. 2s. Marshall.

*Fables,* by Mrs. Teachwell: in which the Morals are drawn in various Ways. 12mo. 1s. 6d. Marshall.

These fables are not only few, but many of them in reality the same, expressed in words somewhat different. The morals likewise are no less deficient in variety, and become insipid by the tedious dialogues in which they are often conveyed.

*The Proceedings in the Court of King's Bench against Charles Bourne, Gent. on the Prosecution of Sir James Wallace.* 4to. 3s. sewed.

A legal process by a gentleman of the sword, against another of the same profession, is an incident not very common; but an appeal to justice is certainly preferable, in every sense, to the Gothic substitution, which bids defiance both to reason and law.

*Proceedings in the Cause, the King against the Dean of St. Asaph, on the Prosecution of William Jones, Gent. Folio.* 1s. 6d. Gurney.

The subject which gave rise to this prosecution was an alleged libel, imputed to the dean of St. Asaph, and contained in a pamphlet entitled 'The Principles of Government, in a Dialogue between a Scholar and a Peasant.' The trial came on at the great session held at Wrexham, for the county of Denbigh, in September last, but was adjourned to the next meeting of that court. The Proceedings now published consist of the arguments of the court and lawyers, among which the speech of Mr. Erskine, counsel for the dean, is what principally commands the attention.

*The Trial of a Cause between — Sutherland, Esq. Plaintiff, and General Murray, late Governor of Minorca, Defendant.* Folio. 2s. Kearsley.

The allegation of the plaintiff, in this cause, was, that general Murray had illegally deprived him of an office which he held in Minorca. The trial ended in favour of the former, who obtained a verdict for five thousand pounds damages.